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# THE PROBLEM OF THE MONETARY UNIT

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## PREFACE

A new book on the nature of money needs perhaps an excuse. If so, the author can only declare that he has not been able to find any fully comprehensible and consistent explanation of the matter. His interest was first stimulated by reading Keynes' *General Theory* many years ago. Though the problems of this work turn on money, it contains no explanation of what money is; and the gap is scarcely filled by the brief introductory remarks in Keynes' *Treatise on Money*. An extensive search in the literature gave no satisfactory result. So the question was still open.

A brief study on the subject was published in 1948 under the title *Ideologie und Realität des Geldes*. It was of a preliminary nature and suffered from various defects. In 1953 a more comprehensive investigation was published in Swedish (*Penningenshetens problem*).

The book has now been completely re-written. The contents are substantially the same as in the Swedish version. But the exposition has been condensed; in some respects it has been re-arranged; and it is to be hoped that additional clarification will have been achieved on several points of importance, especially on the question of the concept of a "unit of value".

It has been the endeavour of the author to write the book so as to make it easily accessible not only to specialists but to every person with sufficient interest for the problems of money to devote a few hours to the study of the basic facts of the monetary system. In order to make the book as readable as possible some discussions that are not absolutely necessary for the main argument have been placed in appendices.

Dr Hugo Hegeland, Associate Professor in the University of Lund, has done me a great service in reading the manuscript. His remarks have been most valuable to me. Thanks are also due to Mr C. M. Evans, M. A. (Cantab.) in Malmö who has very kindly revised the style and corrected the proofs.

Lund, September 1956.

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# I

## A CIRCULAR DEFINITION AND A STRANGE DILEMMA

It has long been usual in the literature dealing with money to enumerate certain *functions* of money. Two of them, namely those of a medium of exchange and of a measure of value, are generally said to be the principal ones. Several secondary functions are also mentioned; among them those of a store of value and of a standard of deferred payments are conspicuous.

When the functions of money are stated, it is evidently taken for granted that we already know what money is. For how can we talk of the functions of an object without having a definite object with certain properties in view? The functions (in the present sense) are the ways in which an object is used. Take for instance a pencil, an automobile, a needle, or a parachute; in each case there exists a class of objects with some general characteristics which are used for this or that purpose. Similarly, the objects, or possibly the devices, that are used as media of exchange or as a measure of value must exist with specific properties in order to be used in those ways. The functions described as monetary functions are the particular uses to which those objects (or devices) are put.

So far all is well. But we also find that "money" is commonly *defined* by its functions. This sort of definition is even held to be the only possible one. "The conception of money is involved in its functions", says Wicksell.<sup>1</sup> Hawtrey writes: "Money is one of those concepts which, like a teaspoon or an umbrella, but unlike an earthquake or a buttercup, are definable primarily by the use or purpose which they serve."<sup>2</sup>

The reasons for the opinion illustrated by these utterances are two.

First, it seems that money, even in the restricted sense of coin and paper currency, cannot be defined merely by its physical properties. Things with the same general characteristics are manufactured and used as children's playthings. Old coins and notes that have gone out of circulation are sold and bought as antiquities but are no longer actual money. Reflecting on such circumstances one is led to the conclusion that something must be added to the physical properties of the money thing in order to make it money. This seems to be a certain function. Old coins, e. g., apparently differ from actual money coins in that they are not used as money.<sup>3</sup>

Secondly, the original concept of money, which refers to coins only, or to coins and bank-notes, seems

<sup>1</sup> *Lectures on Political Economy* II (1935) 6.

<sup>2</sup> *Currency and Credit* (4th ed., 1950) 1.

<sup>3</sup> Cf. Cassel, *The Theory of Social Economy* (1923) 356: "It has gradually become clear that the idea of money must be defined, not by the properties of any particular thing, but by its essential functions." See also T. E. Gregory, art. "Money" in the *Encyclopaedia of the Social Sciences*.



to have become too narrow; for in our days the functions ascribed to money are fulfilled not only by coins and paper currency: to a far greater extent they are met by certain forms of credit, above all in the form of checking accounts with banks. The functional definition is intended to include such credit within the category of money.<sup>4</sup>

The reasons for the functional definition are easy to understand. But the definition is circular. In order to know what are the specific functions of money, one must already know what money is. The concept of money is therefore presupposed in the definition of money.

The circularity is evident in statements like the following, which are taken at random:

F. Walker, *Political Economy* (1888) 123: "That which does the money work is the money thing"; Howard Ellis, *German Monetary Theory 1905—1933* (1937) 104: "What functions as money, is money." Kerschagl, *Das Geld von Heute* (1949) 21: "Eines der wesentlichsten Erkenntnisse des modernen Geldwesens ist, dass Geld ein Funktionsbegriff ist und dass Geld das ist, was als Geld gebraucht wird."

To define money as that which functions as money seems to be like defining an umbrella as an object that fulfils the particular function of an umbrella or a pencil as that which fulfils the function of pencils. This makes no sense.

What Hawtrey wants to say is that an umbrella cannot be defined merely by enumerating certain

<sup>4</sup> Cf., e. g., Bendixen, *Das Wesen des Geldes* (1908) 13 f., where this reason for the functional definition is apparent.

physical properties of a class of objects. It would perhaps be impossible to find any such properties common to all umbrellas. We actually know the object to be an umbrella, and designate it as an umbrella, because it is used in a certain way.

Such is, indeed, our language. We have countless "functional" words, or words that designate objects by means of the use to which they are put. Undoubtedly they serve to make understanding easy in daily life. But it is another question whether scientific concepts can be formed on the basis of such usage.<sup>1a</sup> Is it really possible to attain a workable definition of money in that way?

It seems to be characteristic for that which we call "money" that it is something which is used for the payment of debts. In modern literature the definition of money is usually based on this function. Money is defined as being the *general medium of payment* or the *legal medium of payment*.

*Examples.* Hawtrey, *Currency and Credit* (1950, Longmans, Green & Co) 17: "(Money) is the means established by law . . . for the payment of debts." Hart, *Money, Debt, and Economic Activity* (1948, Prentice-Hall) 4: "'Money' is property with which the owner can pay off a definite amount of debt — with certainty and without delay, even though he is dealing with a stranger."

This definition seems, at first sight, to be workable. On closer inspection, however, one cannot avoid the impression that it is circular. Payment is the discharge of a debt. But a debt is a monetary obligation, i. e., an

<sup>1a</sup> Cf. Th. Mautner in *Tidsskrift for Retsvitenskap* 1956: 156 ff.

obligation to pay money. The concept of money, therefore, seems to be presupposed in the definition. ·

Hart points out the circularity but tries to evade it by saying (5):

“A ‘debt’, formally speaking, is an obligation to pay money — in a definite amount at a definite time and place. Since I just defined money in terms of the ability to settle debt, we seem to be going around in a circle. But a closer look at debt shows a more useful definition. More fundamentally, ‘debt’ is *negative wealth, stated in a unit of account*.”

The definition of a debt as “negative wealth, stated in a unit of account”, seems, however, not to be suited to break the circle. “Negative wealth” is but another expression for an obligation fixed in monetary units, or “an obligation to pay money”. The circle is therefore as evident as in the usual formulation.

The definition of money as medium of payment is also proposed in several forms that are more or less veiled. This is the case when money is defined as “tickets” or something like that, as in John Stuart Mill’s well-known expression: coins and notes are “tickets or orders which (one) can present for payment”.<sup>5</sup> The tickets may be presented for payment of debts, i. e., for discharge of monetary obligations.

Many authors define money as an *assignment* on commodities and services.<sup>6</sup> This definition needs some explanation.

<sup>5</sup> *Principles of Political Economy* II (1849) 9.

<sup>6</sup> See, e. g., Bendixen, *Währungspolitik und Geldtheorie* (1919) 134: “Das konkrete Geld ... ist Anweisung auf verkäufliche Güter im Betrage der auf ihm genannten Werteinheiten.” Schumpeter, “Das Sozial-

An assignment is an order by a creditor to his debtor to pay a sum to a third person, the assignee, in discharge of the debt. For the assignment to be possible, the supposed creditor must evidently have a real claim against the supposed debtor. But what claim is referred to when "money" is defined as an assignment on commodities and services?

The underlying idea is that possession of money includes a *claim on the community* to obtain goods and services. Payment of a debt by transference of money is interpreted as an order by the payer to the community to fulfil the claim by performance to the payee. Properly speaking, this order is the "assignment". That which is transferred is the supposed claim on the community.

The theory can therefore be more adequately expressed by saying that money is the medium of payment and that the medium of payment consists in claims on the community for goods and services. It has often been propounded in this form.<sup>7</sup>

But in what sense can it be said that money consists of claims on the community? Certainly not in a legal sense. The possessor of money has no right to obtain goods or services from anybody in exchange for his produkt und die Rechenpfennige", *Archiv für Sozialwissenschaft und Sozialpolitik* 44 (1917—18) 635. Further examples in Moll, *Logik des Geldes* (1922) 37 f.

<sup>7</sup> Thus, e. g., MacLeod, *The Theory of Credit* (1889) 67; Reid, *Money and Organization* (1950) 10; Simiand, "La monnaie, réalité social", *Annales Sociologiques*, ser. D, 1, 1934, 34; Mathieu, *Physiologie de la monnaie* (1946) 93; Forstmann, *Geld und Kredit I* (1952) 72: "Geld im volkswirtschaftlichen Sinne ist eine in einer Zahlungsgemeinschaft allgemein anerkannte und jederzeit aktivierbare anonyme Forderungslegitimation an das nationale Güter- und Leistungsvolumen . . ."

money (except in special cases where this may be prescribed by legislation). Nobody is under an obligation to sell him anything; nobody has a legal duty to perform services at his request unless he has incurred such a duty by contract or in some other way. This talk of a "claim" is merely a loose expression for the fact that anybody who has money in his possession is usually able to buy goods and services of a fairly great variety, depending on market conditions. The claim theory, therefore, amounts to characterizing money as "general purchasing power".<sup>8</sup> Only the words are different; the idea is the same.

Buying means, however, incurring a debt, or a monetary obligation, in return for the acquisition of property. Ability to buy is ability to pay the debt arising from a purchase, or at least to inspire confidence in this respect. Purchasing power, therefore, is only an expression for a situation conditioned by the disposal of media of payment. Once more we are back to the definition of money as the medium of payment.

Earlier, it was customary to define money as the general *medium of exchange*. Not until more recently has this definition been superseded in common use by the medium of payment definition. But it is pertinent to ask whether or not there is any real difference between these two definitions.

Barter accounts only for a very small fraction of the total exchange of goods and services; the present form of exchange is that of sale and purchase. The

<sup>8</sup> This definition is proposed, e. g., by Chandler, *The Economics of Money and Banking* (1953) 8.

role of money in the transaction of sale and purchase is to be the means of discharging the debt incurred by the buyer. Consequently, money serves as a medium of exchange in its property of being the medium of payment. The two definitions, therefore, are identical in substance if not in words. If the one is circular, the other is circular too.

Circularity would be avoided only if it could be shown that money is a commodity, i. e., that it consists of things comparable to the commodities on the market, such as iron and coal, automobiles and refrigerators, etc. In that case, no real difference would exist between sale and purchase on the one hand and barter on the other. In both cases an exchange of commodities would take place although a certain commodity, as gold or silver, would serve as medium of exchange by being used in one barter after another.

This proposition, however, is impossible to defend under modern conditions, when full-bodied coins of gold or silver have disappeared, when bank-notes are not redeemable in gold or silver, and when bank credit is vastly the most important medium of payment. Present-day money, at least, is no commodity but something essentially different.

Nussbaum holds the definition of money as medium of payment to be circular. He finds it surprising that the function of being the general medium of payment has so often been represented as the essential criterion of money, though this is evidently a vicious circle. Payment presupposes debt, and debt presupposes the knowledge of what money is, debt being a monetary

obligation.<sup>9</sup> Nussbaum maintains that circularity can and must be avoided by defining money as the common medium of exchange. It is instructive to follow his reasoning in this respect.

Nussbaum reckons only legal tender, i. e., notes and coins, not bank credit, as "money". Notes and coins are physical things; a monetary obligation, according to Nussbaum, is an obligation to deliver such things. They are "fungible" and therefore comparable to wheat, coal, and Ford cars. But an important difference exists in that the composition of money is irrelevant. Money may be made of gold, silver, paper, and what not; this is unessential. What has relevancy, says Nussbaum, is *only the relationship of the money piece to a certain ideal unit* (dollar, pound, etc.).<sup>10</sup>

This implies, however, a fundamental difference between money and commodities. For these latter, their physical properties are essential; for money, on the contrary, it is essential only that the pieces are given and taken as representatives, according to their inscription, of a number of ideal units. This means that the pieces are used as means of discharging obligations fixed in monetary units, i. e., for payment of debts. In other words, the essential thing with the money pieces is their function as *general media of payment*.

Despite the words used, in Nussbaum's reasoning "money" means medium of payment. Again we are brought back to the definition that seems to be cir-

<sup>9</sup> *Money in the Law* (2nd ed., 1950) 11.

<sup>10</sup> *Money in the Law* 13.

cular. It is impossible to avoid circularity by defining money as medium of exchange instead of defining as medium of payment. Both formulas amount to the same thing.

Sometimes, money is characterized as a *representative* of goods and services.<sup>11</sup> Money can, however, be said to "represent" goods and services only in the sense that it is a means of procuring them by buying them; to say that 1,000 dollars represent a certain amount of goods and services can have no other meaning than saying that the possessor of 1,000 dollars can buy, and pay for, goods and services that people are willing to sell for that sum.

If the medium of payment definition turns out to be circular, it has to be asked whether the definition of money cannot be based on the other principal function ascribed to money, that of being a "measure of value". This, however, depends on the possibility of conceiving money as a measure of value prior to, and independently of, its function as a medium of payment.

In ancient times, goods like oxen, sheep, or gold could, perhaps, be used as "measures of value" without being media of exchange. But this is irrelevant here. The question is now whether any modern money, like the dollar or the pound, could conceivably function as a "measure of value" without being employed as a general medium of payment.

The possibility of using the dollar or the pound as

<sup>11</sup> E. g., Forstmann, *Volkswirtschaftliche Theorie des Geldes* I (1943) 135.



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<sup>11</sup> E. g., Forstmann, *Volkswirtschaftliche Theorie des Geldes* I (1943) 135.

a measure of value, whatever that notion includes, is undoubtedly dependent on the monetary systems based on the dollar and pound, respectively. It is essential for these systems that sales and purchases are conducted on a dollar or pound basis; prices are fixed in dollars or pounds and the debts arising out of such contracts are discharged by means of the media of payment belonging to each system.

If the "measurement of value" is nothing but price-fixing, it is only an element in the process of exchange of goods and services by means of money. If it is something beyond price-fixing, it can exist only as a consequence of the existence of the monetary system and the general habit of exchanging goods and services for money. "Values" cannot in any sense be measured in dollars or pounds unless there is a market on which contracts for sale and purchase are made in terms of dollars or pounds, respectively.

Since, therefore, the measure of value definition seems to include the idea that money is the general medium of payment, our provisional survey leads to the conclusion that every attempt to define the concept of money leads back to the property of being the medium of payment. This property seems, indeed, to be the essential characteristic of what we call money. Everything else may change; objects and devices of the most varying kinds may be used as media of payment. Whatever is used as the general medium of payment is what we call money. To be a general medium of payment seems to be identical with being money.

If this be so, we are confronted with a curious situation. A dilemma seems to exist. On the one hand, all definitions of money boil down to the statement that money is the general, or legal, medium of payment; and no other definition seems to be possible. On the other hand, this definition has the aspect of being circular.

For the most part this apparent circularity has passed unnoticed or been brushed aside. But the dilemma has never been solved.

The situation is not satisfactory. It may be taken as an indication that there is something about money that needs clarification. This, and not the question of definition as such, is the important thing. A definition may serve only to indicate in what sense one is going to use a certain word. In that case, it need not be discussed at any length, provided the meaning is clear. But a definition may also be intended to be a description of the characteristics of an objective phenomenon. Such a definition can only be the fruit of an investigation of the phenomenon in question.<sup>12</sup> When we find that current definitions of "money" are exposed to criticism as being circular, and when we, moreover, find it difficult to avoid defining money in such a way, there is some reason to suppose that neither our ideas on the nature of money nor the objective phenomenon, or complexity of phenomena, indicated by the word money have been sufficiently elucidated.

<sup>12</sup> Cf. Eucken, *Die Grundlagen der Nationalökonomie* (6. Aufl., 1950) 247.

D. H. Robertson, e. g., discusses the use of the word "money" from the terminological point of view only in his book *Money* (1944) 2. After having stressed that it is desirable to arrive at an early understanding of what we mean by money, the author continues to say that there is no very general agreement upon this point; as with other economic terms it does not matter very much, however, what meaning we adopt as long as we stick to it, or at any rate do not change it without being aware that we are doing so. It is important to note that there are two real questions on this point besides the terminological one. The first is what we have in mind when we talk about money. The second refers to the nature of the objective realities covered by the word money in its various uses.

It cannot be said in advance what it is that needs clarification. This would mean anticipating the result of the investigation. What we have to do is to start our inquiry on the point where the obscurity sets in.

When "money" is defined as the general medium of payment, the concept of a debt is presupposed: first comes the debt, then the payment. The first thing to do will therefore be to study the structure of a debt; thereafter, the media of payment have to be investigated. This course of inquiry leads up to the question of what the monetary unit consists; and this will be our main problem.

## II

### THE STRUCTURE OF A DEBT

Legal obligations of economic significance arise out of promises, torts, and decrees by courts or administrative agencies. With regard to their content they fall into four categories: obligations to pay a sum of money, to deliver goods, to perform services, and to abstain from activities otherwise allowed. An obligation to pay a fixed sum of money is called a *debt*.

An obligation implies a relationship between two persons, or such organisations as are called juridical persons. One party has to perform something, under the threat of sanctions, for the benefit of the other party according to a pattern of action laid down in law, contract, or decree. In order to make clear the specific structure of a debt a few words must first be said on obligations in general.

#### 1. *Content and sanctions of obligations*

Two elements can be discerned in an obligation: its content and its sanction.

The *content* of an obligation is that which the obligated party has to do according to the pattern of action governing the obligation: to deliver a quantity

of goods, to perform a service, to pay a sum of money, etc. The legal *sanction* is a measure to be taken by organs of the state on application by the creditor in case of breach of contract by the other party.

It seems natural that the consequence of a breach of contract should be the enforcement of fulfilment. This idea underlies the regulations of sanctions in continental European law. In the German Civil Code (§ 241), e. g., the principal right accorded to the creditor in case of non-fulfilment is that of claiming fulfilment according to the contract.

The enforcement of a contract in the sense of forcing either party to implement it encounters, however, great difficulties. One cannot literally compel a person to do what he has promised to do. What can be done is only to put some pressure on him which is calculated to induce him to fulfil his promise. In certain cases his own action may be supplanted by that of an executive officer; if a horse has been sold but not delivered, the officer may seize it and transfer it to the possession of the buyer. But such measures have a very restricted application in actual life. The horse can be transferred to the buyer only if it is really found in the possession of the seller; and it is not certain that the buyer, after a considerable lapse of time due to litigation, really wants that horse. In the case of contracts for sale of quantities of so-called fungible goods (goods that are sold in quantities measured by weight or volume, such as grain or oil) it will hardly ever be practicable to envisage the actual transfer of the quantity promised from seller to buyer

through an executive officer. A seller who has the quantity in his possession is not likely to let matters advance thus far without effecting delivery himself. Another possible course of action is that the executive officer buys the required amount on the market at the expense of the seller and delivers it to the buyer. But this proceeding is rather onerous; and it ends in the extraction of a sum of money from the seller instead of the goods; therefore it cannot exactly be called enforcement of fulfilment.

In fact, such enforcement of contracts for sale of fungible goods plays only a very subordinate part in those countries where it is legally possible.<sup>1</sup> In England and the U. S. A. — that is, in the greatest trading countries of the world — judgment for specific performance cannot even be obtained, except in special cases. The general remedy awarded by the courts when the contract is not duly performed by the seller is a judgment for money damages. In ordinary cases, therefore, the sanction consists in the imposition of a monetary obligation in place of the original obligation.

The actual situation with regard to contracts for sale of fungible goods is rather similar in continental Europe from a practical point of view. Even if a judgment for delivery of the goods is obtained, the ultimate sanction will nearly always be the extraction of a sum of money from the seller. First comes the imposition of a debt by judicial decree which takes the place of the original obligation; then, if need be,

<sup>1</sup> Cf. Rabel, *Das Recht des Warenkaufs* I (1936) 376; Szladitz in *The American Journal of Comparative Law* 4 (1955) 231 ff.

payment is obtained by seizing and selling belongings of the debtor.

This clearly shows that the *sanction* of an obligation need not conform to the *content* of the obligation. In cases of contracts for sale of goods it is far more practicable that the general remedy should be the imposition of a debt than an order for specific performance. What is needed is not so much a proceeding directly aimed at procuring for the buyer exactly that which has been promised to him, such performance often being impossible to obtain or without great interest to the buyer. The primary need is for a *constant motive* on the side of the seller to fulfil the promise himself, if at all possible. Such a motive is supplied by the knowledge that a debt may be imposed on him in case of non-fulfilment — a debt that will generally be more onerous to him than the performance of the contract, especially as the costs of litigation will be added to the amount of the damages assessed by the court. In the second line, the imposition of a debt on the defaulting seller has the function of giving the buyer monetary compensation for his loss from the breach of contract; and this will generally be more advantageous to him than belated performance.

Debts that are imposed as sanctions for non-fulfilment of other obligations may appropriately be called *sanctionary debts*. There are, indeed, two sanctions following upon each other, if need be. The decree of the court itself has the character of a sanction — a *judicial* sanction — since it exerts considerable pres-



sure on the defaulting party. The situation is now different from that prevailing before the judgment. Then, some doubt could perhaps exist regarding the construction of the contract or other relevant facts; in any case the defaulting party is now under the immediate threat of executive measures. Execution of the judgment is the second sanction, the *executive* sanction; it is the sanction of the sanctionary debt.

Pressure by legal means could be exerted on contracting parties in many other ways. In ancient Rome a defaulting debtor could be adjudicated to the creditor as his slave; if there were several creditors, they were entitled to the partitioning of his body. In mediaeval and modern times imprisonment for debt has been widely used as a means of putting pressure on the debtor, his friends and relatives, to procure payment. Nowadays this form of sanction is abolished in many countries; in those where it is retained, e. g., England and the U. S. A., it is only applicable in special cases. The extraction of a sum of money from the property of the debtor has come to be the universal and ultimate sanction of obligations in the field of private law.

## 2. *Difference between a debt and an obligation to deliver goods*

Obligations to deliver fungible goods are those which come closest to monetary obligations, or debts. In the continental tradition, originating from Roman law, monetary obligations have actually been classified

as obligations of this kind. A debt has usually been regarded as an obligation to deliver a quantity of a specific kind of fungible goods. The legal media of payment, coins and bank-notes, have been ranged among such goods.

This point of view is especially prominent in the German Civil Code. In § 607 the Code says that whoever has received money "or other fungible things (*vertretbare Sachen*)" as loan is obligated to hand back the same quantity of such things of the same quality. This paragraph is modelled on a passage in the Code of Justinian referring to loans (*Digesta* 44, 7, 1, 2): *mutui autem datio consistit in his rebus, quae pondere numero mensurave constant, veluti vino oleo frumento pecunia numerata, quas res in hoc damus, ut fiant accipientis, postea alias recepturi eiusdem generis et qualitatis*. In his commentary on the Code (before § 244), Planck, one of the authors of the Code, accordingly defines money as fungible goods (*vertretbare Sachen*) with the addition that they are valid as a measure of value in commerce (*im Verkehr*). Monetary obligations, consequently, are obligations to deliver fungible goods (*Gattungsschulden*) though they have certain peculiar characteristics in that fulfilment can be effected with any combination of coins and notes being legal tender. The French Civil Code § 1892 ranges money among "*choses qui se consomment par l'usage*", the ordinary use of money being expending it. Cf. Nussbaum 154 f.

A different notion was launched by Savigny in his famous exposition on monetary obligations.<sup>2</sup> Money, he says, may represent any object of value whatsoever; the possession of money conveys the same economic power as the possession of the things represented. Money is therefore the expression of a quantity of

<sup>2</sup> *Das Obligationsrecht* I (1851) 405 ff.

*abstract economic power*. Accordingly, a monetary obligation must be regarded as an obligation to transfer a certain quantity of abstract economic power, or a quantity of value. The subject of the obligation, that which is to be transferred to the creditor, is therefore, in its essence, non-material.<sup>3</sup>

M. Wolff follows Savigny in defining a monetary obligation as an obligation to procure an "uncorporeal economic power of a definite numerical amount" ("Das Geld" in Ehrenbergs *Handbuch des gesamten Handelsrechts*, 4: 1, 1917, 577). According to Wolff the abstract economic power is represented (*dargestellt*) in legal tender (*Geldstücken*). Probably Savigny would have described the relation between the abstract economic power and the media of payment in the same way. Isele gives much the same definition as Savigny in his very instructive paper "Geldschuld und bargeldloser Zahlungsverkehr" in the *Archiv für die civilistische Praxis* 129 (1928): "Geldleistung ist Verschaffen abstrakter Vermögensmacht, also Leistung von Vermögenswert in allgemeinster, fungibelster Form" (181, cf. 168). Approximately the same definition by Larenz, *Lehrbuch des Schuldrechts* I (1953) 99.

Nussbaum criticizes Savigny. His objection is that the "abstract economic power" is merely a description of the economic potentiality of money. The abstract economic power is not a juridical concept, and it is not suitable for the definition of debts.<sup>4</sup>

In this criticism Nussbaum seems to be right. The

<sup>3</sup> Savigny also has the idea that the subject of a monetary obligation is the delivery of fungible things (405). But this is probably regarded as being of outward significance only. The very essence of the obligation is the transference of abstract economic power or value (441).

<sup>4</sup> *Money in the Law* 141.

promise to pay 100 dollars or pounds cannot be described as a promise to procure a fixed amount of abstract economic power for the creditor; it is a promise to pay 100 dollars or pounds and nothing else. Whatever economic power the creditor acquires on the discharge of the debt is derived from the possession of the media of payment then obtained; the magnitude of this power depends on the price-level at the time of payment. The debtor assumes no responsibility in this respect.

Savigny's theory was put forward as a ground for the valoristic principle which he supports. He wanted to make the economic significance of a debt stable in spite of debasement of the coin. To this end he construed the debtor's promise as a promise to transfer a value of the same magnitude as the value received. But his reasoning implied moving in a circle; for what was to be shown was precisely that the promise had to be construed in that way.<sup>5</sup>

The well-known method of deducing the legal consequences of a contract from "the will of the parties" always leads to circular reasoning. If a contract includes, e. g., a promise to pay money, the parties necessarily presuppose certain legal rules concerning such promises. These rules cannot be derived from speculations about what people believe them to contain. It is for the legislator or the courts to say what legal consequences shall be applied to a promise to pay a sum of money. The existence of a common opinion as to the nature of the right obtained through a promise to pay a quantity of money may be a powerful factor influ-

<sup>5</sup> The followers of Savigny cited above are not adherents of the valoristic principle.

encing the decision. But such an opinion is not to be confounded with the so-called will of the parties. If an opinion of the kind referred to exists prior to any regulation of the matter by statute or precedent, it is a natural law idea that actually prevails; and the parties in monetary transactions probably take this to be the law, which is quite comparable to their assuming a certain legal regulation.

In opposition to the theory that the subject of a debt is a vague power, and therefore non-material, Nussbaum holds that the obligation of the debtor is *the delivery of tangibles*, that is, of coins or paper money.<sup>6</sup> It is true, he adds, that there is a peculiar indefiniteness inherent in the concept of a debt; for the specific moneys to be used in actual payment are undetermined at the time of the creation of the debt. The debt is fixed in an ideal unit. It depends on the legislation at the time of payment what coins or notes are to be used. Moreover, the debtor may use a combination of different denominations of coins and notes according to the rules of monetary law. But with these reservations, Nussbaum maintains that the subject of the debt is the delivery of tangibles, or material objects. Thus far Nussbaum follows the continental tradition.<sup>7</sup> Mann adopts essentially the same position as Nussbaum.<sup>8</sup>

<sup>6</sup> *Money in the Law* 142. Cf. also Walker, *Das Buchgeld* (1951) 13, 79.

<sup>7</sup> Nussbaum (155 f.) nevertheless deplores the juxtaposition of money and fungible things in the legal regulation of loans, negotiable instruments, etc., that is found in German legislation and which he rightly regards as an anachronism tending to obscure and complicate the law. A substantial diversity is said to exist between monetary and non-monetary situations, though this theme is not further elaborated by the author.

<sup>8</sup> *The Legal Aspect of Money* (2nd ed., 1953) 69: "A monetary

Monetary obligations are undoubtedly a kind of obligation to deliver fungible goods if pure *metallism* prevails. Metallism means in this respect that a promise to pay a sum of money is construed as a promise to deliver a certain quantity of precious metal; a promise to pay 100 pounds is, e. g., understood to be a promise to deliver 100 times the quantity of gold contained in the sovereign.<sup>9</sup> If such a doctrine has ever been upheld by the courts, it has, in any case, been discarded long ago. *Nominalism* prevails everywhere. Debts are expressed in monetary units, which are not identical with quantities of metal, and discharged dollar for dollar, pound for pound, etc., regardless of changes in the metallic content, if any, of the currency. The question is now whether a monetary obligation, under the nominalistic system, can be defined as an obligation to deliver "tangibles" or "chattels". Is it fundamentally of the same kind as an obligation to deliver fungible goods?

obligation involves the payment of so many chattels, being legal tender at the time of payment, as, if added together according to the nominal value indicated thereon, produce a sum equal to the amount of the debt."

<sup>9</sup> Thus, e. g., Sir Robert Peel in a speech in the House of Commons on May 6th, 1844: "The engagement to pay a pound means nothing, and can mean nothing else, than the promise to pay to the holder, when he demands it, that definite quantity of gold." (*Speeches in the House of Commons*, 1844, 8.) Cf. James Wilson, *Capital, Currency, and Banking* (1847) 13: "After having fixed upon gold as our standard of value, and determined how much of that metal each coin should contain, it is clear that every contract or transaction, expressed in money, did in reality refer to a certain corresponding quantity of gold. If a person made a purchase of any commodity to the amount of 31 £ 17 s. 10 1/2 d., and paid for it in coin, he did in reality exchange *one ounce* of gold for such commodity."

A comparison between a monetary obligation and an obligation to deliver a quantity of fungible goods gives the following picture.

As regards the *sanctions* incurred in case of non-performance there is no great difference. With regard to both kinds of obligations the judicial sanction consists in the imposition of a debt and the executive sanction in the extraction of the sum due from the property of the debtor by executive measures.

It might sound strange that the sanction of a debt is the imposition of a debt by judicial decree. This would seem to lead no further. The prevailing theory in jurisprudence is, in fact, that the court only asserts the *existence* of a debt when judgment is given for the claimant. The debt is held to be the same as before, though it is now authoritatively ascertained by the court. This way of looking at things excludes the idea of a new debt being imposed. The right of the creditor and the corresponding obligation of the debtor are held to be an ideal power and ideal bond somehow existing. The task of the court is said to consist in the ascertainment of the existence of the right. But this metaphysical language does not give a true expression of actual reality.

What really can be ascertained by the court is the existence of a group of operative facts alleged by the claimant. The right-debt-situation implies the existence of such facts in conjunction with the rules of law governing their legal significance. When judgment has been given and acquired the force of *res indicata*, a new right-debt-situation comes into existence. The operative fact is now the judgment; the sum to be paid is that prescribed in the judgment; and the sanction for non-payment is immediate execution. Evidently, the new situation differs considerably from the one existing prior to the judgment; though there generally is, and ought

to be, an important element of continuity in that the amount of the new debt is fixed in accordance with the previous one (plus costs, etc.). Correctly speaking, therefore, a new debt has been created taking the place of the old one. This is what we have called a sanctionary debt. The judicial sanction of a debt consists in the exchange of one debt for another of a somewhat different character.

So it appears that, generally, the judicial sanction of a debt as well as of an obligation to deliver goods is the imposition of a debt sanctioned by immediate execution. The difference is that in case of default on a monetary obligation the amount of the sanctionary debt is fixed in accordance with that of the primary debt; whereas, in case of default on an obligation to deliver goods, the amount of the sanctionary debt is dependent on the assessment by the court of the loss incurred by the claimant. In addition, it is usually much easier for the creditor to obtain judicial sanction on a primary debt than on an obligation to deliver goods, especially if his claim is grounded on a negotiable instrument.

The difference between the two kinds of obligations is much greater with regard to the *mode of fulfilment*. An obligation to deliver goods can only be discharged by delivering exactly the goods in question. The buyer may agree to take something else, e. g., corn instead of wheat. But then the obligation is changed through a new agreement between the parties.

In the case of debts the situation is different. Legal writers have always been asking what the creditor is "entitled to demand". Quite naturally, the answer has been: payment by legal tender. But if we ask instead how a debt may be discharged by the debtor, we get a more varied picture.



Payments fall into the two chief categories of cash and non-cash payment.

Cash payments are made by tendering coins or notes to the amount of the debt. Generally, the coins or notes are "legal tender", that is, they are of a kind expressly described in law as legal media of discharging debts and expressly manufactured for that purpose. But there are many instances of coins and notes that are not legal tender being widely used as media of payment. A custom in this respect will have practically the same effect as express legislation. There need not, indeed, be any such legislation; coins and notes may circulate without it as media of payment.<sup>10</sup> If there is legislation on the subject, as is the case in all modern countries, non-legal coins and notes may circulate side by side with those which have been endowed with the character of legal tender. In such circumstances, the courts will probably take the position that the creditor is entitled to insist on receiving legal tender. But this rule will be subject to important qualifications; and the courts will hardly declare that payments actually made in circulating non-legal tender money and received without protest by the creditor are void.

Cash payments are similar to delivery of goods in that physical things are transferred. But there is an important difference. The physical substance of the media of payment is irrelevant. The important thing

<sup>10</sup> Legislation making coins or notes legal tender is a relatively recent phenomenon. Cf. Nussbaum 46. It seems to date from the eighteenth century.

is that the objects by force of law or custom are media of payment and that the number of monetary units in the inscription corresponds to the amount of the debt. The media of payment may even be of a kind not existing at the time when the debt was created.<sup>11</sup>

Non-cash payments are made in several ways. In Great Britain and the U. S. A., cheques are the usual instrument for such payments, though certificates of deposit are occasionally employed.

A cheque is an order to a bank, issued in a special form, to pay an amount of money to the drawee; it presupposes that the drawer has a deposit in the bank or can count on getting credit from it. Different rules are conceivable as to what is required for the completion of the payment. One alternative is that the payment is completed on receipt of the cheque; the original debt is then exchanged for a debt resting on the cheque for the time until the cheque is honoured by the bank. The other alternative is that payment is completed only at the moment when the bank honours the cheque either by handing out cash to the drawee or — more often — by crediting his account with the sum in question. The latter alternative seems to be the one generally accepted by the courts in so far as the question has been submitted to them.<sup>12</sup>

In continental Europe postal cheques are important instruments for non-cash payments. The post office serves as a bank. The postal cheque is an order sent to

<sup>11</sup> Cf. Nussbaum 142.

<sup>12</sup> Cf. Nussbaum 113 ff. with regard to bank remittances.

this bank for the transference of an amount from the account of the payer to that of the payee. In some countries, especially in Germany, direct orders to commercial banks for the transference of an amount to the account of another person are more or less extensively used for large payments.

In these cases, as in the case of a cheque being honoured by crediting the account of the drawee, payment is effected through an operation within a monetary institution. What actually takes place is a couple of notations in the books of the institution entailing certain legal consequences. Such payments may therefore adequately be called *book-payments*.

Book-payments are responsible for the overwhelmingly largest part of the total volume of payments in economically advanced countries. The part of cash payments in Great Britain and the U.S.A. is generally estimated at about ten per cent of the whole volume. The position is similar in many other countries though cash payments are used to a greater extent.<sup>13</sup>

Cheques and other instruments for non-cash payments have nowhere been made legal tender except in special cases. In law the creditor may refuse tender of payment by cheque. Undoubtedly, however, the debt is held to be discharged at least when the cheque has

<sup>13</sup> In Sweden a survey was made in 1945 under the auspices of the Bankers' Association. Inter-bank payments and payments between the several branches of the administration were left out of consideration. Cash payments were found to be the most numerous. But as regards the volume of payments the figures were the following: cash 27 %, cheques 40 %, bank remittances 5 %, postal cheques 28 %. (*Ekonomisk Revy*, 1945, 173 ff.)

been received by the creditor and honoured by the bank. In the same way a debt is discharged when a bank or the post office, by order from the debtor, has transferred the required amount from his account to that of the creditor.

These circumstances show the essential difference between obligations to deliver goods on the one hand and debts on the other. Obligations of the former kind can only be fulfilled by delivery of the goods promised. Debts, on the contrary, can be, and are to an enormous extent, discharged without the handing over of any physical object at all besides the instrument used for bringing about the book-payment. It is therefore submitted that the subject matter of a debt cannot be described as tangibles or chattels.<sup>14</sup>

The facts do not support such a description. It could at most be defended from a narrowly legal point of view as a description of what the debtor is bound to deliver to the creditor if he insists on it. The creditor is said to be entitled to demand payment by legal tender, i. e., notes or coins, and to refuse payment by other means. But even this proposition is doubtful.

(i) If the creditor is held to be entitled to refuse payment by cheque, this means that the legal consequences of default will ensue if such tender is made but refused. There are a number of cases where the creditor has tried to make use of this rule, not because payment by cheque is unsatisfactory but because he wanted to obtain certain advantages by putting the

<sup>14</sup> Isele reaches the same conclusion, *Archiv für die civilistische Praxis* 129 (1928) 168.

debtor in the position of a defaulting party. The courts have shown a marked tendency to discourage such practices; when, e. g., payment by cheque has previously been usual between the parties, the refusal has not been supported.<sup>15</sup> It might be taken for certain that the scope of the old rule will be narrowed down more and more; the law cannot fail to take account of prevailing usages in respect of payment. Unless reasonable grounds for refusal of payment by cheque are shown, the legal consequences of default should not be applied against the debtor who has offered such payment.

(ii) When payment is made by postal cheque to a person who has an account with the post office, the payment is completed without the knowledge of the payee; he is afterwards notified from the post office. But it is hardly conceivable that, in such a case, a court would hold the debtor to be in default if the payee were to return the sum and claim payment in cash. To say that the opening of an account with the postal office implies an offer to present and future debtors to receive payments by postal cheques is making use of a fiction, since no such idea need enter the mind of the person in question. The rule obviously required under present conditions is simply that payment may be validly made by postal cheques to any person having an account with the post office (unless it has been announced that the account is to be used for special purposes only).

(iii) Even if the creditor is held to have an un-

<sup>15</sup> Cases in Dach, *Cases in Monetary Law* (1952) 23 ff.

limited right to refuse payment by cheque, this does not mean that a positive agreement is needed for making payment by cheque. Non-exercise of the right of refusal is not the same thing as a positive agreement. To operate here with an "implied agreement" is again to make use of a fiction. Both parties actually proceed on the assumption that payment by cheque is a proper way of making a payment unless specifically objected to. If reasonable grounds are required for a refusal to take a cheque, it is obvious that the positive agreement would be pointless in the vast majority of cases where no such grounds exist.

So it will be seen that the traditional legal principle is not only strangely alien to the realities of our present monetary system; it is hardly tenable even from a strictly legal point of view. Still more important are, however, the following considerations.

(i) When a book-payment has been made, can it really be said that the creditor has received a *substitute* for that which is due to him? Is the case comparable to that of a buyer of wheat who has conceded to accept corn in its place? This seems not to be so. The reason is that what is due to the creditor is held to be a sum of dollars or pounds or a unit like that, not coins or notes of such and such denominations. But the creditor is held to have received the sum in question when his account with a bank of unquestioned solvency has been credited with the amount. In other words, he seems to have received exactly that which was due to him.

(ii) When payment is made in cash, the creditor is

also held to have received a sum of dollars or pounds, etc. This sum is considered to have been transferred to him when the coins or notes have been handed over. But the coins and notes are not identical with the monetary units. Their role seems to be that of being means of effecting the transfer of these units.

### 3. *Conclusion*

The comparison between obligations to pay money and obligations to deliver goods leads to the conclusion that there is a fundamental difference between these two kinds of obligation. The obligation to pay money cannot be defined as an obligation to deliver tangibles. It must be defined as an obligation to transfer a sum of monetary units to the creditor, a number of different ways being available for effecting this transfer. The subject of a debt seems to be *non-material*. The German expression "*Summenschuld*" is very appropriate.

In refusing to define monetary obligations as obligations to deliver material objects we have not accepted the doctrine, stemming from Savigny, that the subject of a monetary obligation is a quantity of abstract economic power. The question as to the nature of monetary obligations is still open. Hitherto, we have only attained a negative conclusion: that such obligations can neither be defined as obligations to deliver physical objects nor to confer a definite quantity of "abstract economic power". It seems to be difficult to say anything more than that a debt of 100 dollars

is an obligation to pay 100 dollars. But this is only a tautology. Is it not possible to go further?

In attempting to do so, it seems advisable first of all to study those objects and devices by means of which payments are effected.



### III

## THE MEDIA OF PAYMENT

The media of payment fall into two categories corresponding to cash payments and book-payments. Cash payments are made with physical money. Book-payments are made through transference of money claims. These claims are usually called "bank money". A more comprehensive term, including accounts with postal cheque offices, is that of *book money*.

#### 1. *Physical money*

Physical money nowadays exists in two forms: in the shape of coins and in the shape of notes. Coins are the older form. Notes have come into being as a substitute for coins.

##### a. Coins

Coins are pieces of metal, or of some other suitable material, bearing a stamp indicating a number of such units as dollars, pounds, or the like.

The traditional theory as to the origin of coins, which stems from Aristotle, says that the precious metals, gold, silver, and copper, were first used as media of exchange according to weight and fineness. Ingots, rings and bars of

metal had therefore to be weighed on each occasion and their fineness had to be assessed. But the weighing must have been a cumbersome proceeding; and the ascertainment of fineness could hardly have been effected at all in a reliable way. Minting was invented in order to facilitate exchange. It meant putting a stamp on uniform pieces of metal as a guarantee of a certain weight and fineness in them.

This theory is based on speculations rather than on study of the facts. Modern research presents a different picture. The origin of money is probably connected with religious ideas and practices. Moreover, it must be taken into consideration that gifts preceded sales in the exchange of goods. Among more recent works on the early history of money the following may be cited: Laum, *Heiliges Geld* (1924); Gerloff, *Die Entstehung des Geldes und die Anfänge des Geldwesens* (1940) and *Geld und Gesellschaft* (1952); Kaulla, *Beiträge zur Entstehungsgeschichte des Geldes* (1945); Dobretsberger, *Das Geld im Wandel der Wirtschaft* (1946); Einzig, *Primitive Money* (1949).

Under the gold standard the stamp on the coins was commonly interpreted as a *certificate* of weight and fineness. For the sake of practicability, the theory said, gold was used in this form instead of being weighed on each occasion.<sup>1</sup> This means that money was identified with gold.

A distinction was made between full-bodied coins and token coins. Full-bodied coins were those which were made from a quantity of the precious metal equal in price to the sum of monetary units indicated on the stamp. Token coins did not carry such a metal value; their material was irrelevant.<sup>2</sup>

<sup>1</sup> See, e. g., Jevons, *Money and the Mechanism of Exchange* (23. ed. 1910) 57.

<sup>2</sup> Ibid.

Only full-bodied coins, or standard coins, were regarded as true money in their own right. Token coins were subsidiary money, their moneyness being derived from the full-bodied coins in that they could be exchanged for these in the central bank. Since notes, too, were regarded as a mere substitute for full-bodied coins, the question of the nature of money was that of the nature of full-bodied coins.

Token coins were often regarded as an anomaly. According to the American Mint Act of 1792 even the copper coins destined for use as small change were to carry a metal value corresponding to the stamp. Cf. Kemmerer, *Gold and the Gold Standard* (1944) 67.

The stamp did not always expressly indicate a number of monetary units. There are many instances of coins, e. g., English sovereigns, without any indication of that kind. It is enough, of course, that a piece is generally known to represent a certain number of monetary units, e. g., one pound.

It is obvious that the certificate theory, even if it might be supposed that it was correct with regard to the gold standard, cannot hold today, when full-bodied coins have virtually disappeared from circulation. How, then, is the nature of coins to be defined? They cannot be described as token coins in the sense of the old theory; for they are not tokens of other coins or of any other money. They are immediately money.

In the beginning of the century Knapp launched his famous *chartalist* theory in opposition to the metallist theory. He rejected the identification of money with gold or some other metal. Instead, he defined physical money, primarily coins, as *stamped*

*pieces legally valid as media of payment.* The material used in manufacturing the pieces is contingent. The important thing is only the stamp. But the stamp obtains its relevance through the law; it is the law that makes such pieces valid as media of payment. The function as medium of payment is not based on the metallic content but on the law: the validity is "proclamatory". Consequently, "the soul of the monetary system" is not to be found in the material of the pieces but in the law regulating their employment.<sup>3</sup> According to Knapp there exists no monetary system when the metal as such is the medium of exchange; a monetary system comes into being only from the time when stamped pieces circulate as media of payment according to the stamp.<sup>4</sup>

In the terminology of Knapp money (meaning physical money) consists of *chartalist media of payment*.<sup>5</sup> The adjective "chartalist" was created by himself on the basis of the latin noun *charta* in the sense of "mark" or "sign".<sup>6</sup> It cannot be discovered by mere inspection of the pieces that they are media of payment, he says: this knowledge can only be derived from the knowledge of the law and comparing the pieces with the requirements of the law.<sup>7</sup>

Knapp calls his theory the "State Theory of Money" because he holds that the law, which is decisive in making

<sup>3</sup> Knapp, *Staatliche Theorie des Geldes* (1905, 4. ed. 1923, which is cited here) 2.

<sup>4</sup> Ibidem 21.

<sup>5</sup> Ibidem 31.

<sup>6</sup> Ibidem 26.

<sup>7</sup> Ibidem 27.

the stamped pieces media of payment, consists in the will of the State. Otherwise he might have used the expression "Law Theory of Money".

The fundamental idea is that the State imposes pieces formed in a certain way as media of payment. The transition from the original system of "auto-metallism" — meaning that metal was used as medium of payment according to weight — was a gradual one, according to Knapp. When coins first were minted, he maintains, the stamp was held to guarantee weight and fineness of the pieces; nobody thought of the effects of abrasion. The only difference over against the previous system consisted in the exclusion of the weighing. In the course of time, however, when the coins had lost some of their original weight through abrasion, the question arose: are the coins to be weighed, or are they to be accepted in payment according to the stamp, without regard to possible loss of weight? As soon as the courts enforced the latter rule, chartalism had been introduced.<sup>8</sup>

Chartalism presupposes that obligations are fixed in certain units, called "units of value" by Knapp, such as marks, dollars, and pounds, to which the formed pieces correspond since it is indicated on their face for how many such units, or fractions of such a unit, the piece is to be a medium of payment. In the pre-monetary system, Knapp says, when debts were paid in metal according to weight, the unit of value was a quantity of metal. But as soon as chartalism is in-

<sup>8</sup> Ibidem 30.

troduced, the unit becomes "nominal" i. e., non-material.<sup>9</sup>

Knapp maintains that even full-bodied coins were chartalist. The certificate theory was, indeed, not applicable even to them. The legal medium of payment was not gold as such. Without special agreement between the parties a debt could not be discharged by the delivery of a quantity of gold. The legal medium of payment was gold *coins*. The purpose of the stamp was to make the piece of metal correspond to the legal requirements for pieces that were to be used as media of payment. By virtue of their stamp the pieces were specimina of legal tender. The stamp could have been impressed on other material with the same effect. Only certain practical considerations dictated the use of gold as material for the legal media of payment.

Knapp's description of the nature of coins has been widely approved. "All modern money is chartalist", Keynes says.<sup>10</sup> Since he wrote those words when the gold standard was still in force in Great Britain, he must have included the coins of the gold standard under the "modern money" that is characterized as chartalist.

The certificate theory rests on a confusion of thought. The stamp was no certificate regarding weight and fineness; its purpose was to indicate the number of monetary units for which the piece was to be legal medium of payment. A certificate would have been pointless; it would have had a sense only if gold

<sup>9</sup> Ibidem 18 ff.

<sup>10</sup> *A Treatise on Money* I (1930).

as such had been the legal medium of payment, which was not the case.

It is true that everyone who was familiar with the provisions of the rules concerning minting could know how much gold a sovereign contained, or rather had contained from the beginning. In a similar way, everyone familiar with the rules for printing pound notes may deduce what sort of paper is used in the note which he has in his hands. But the inscription on the note is obviously not a certificate concerning the quality of the paper. In both cases we make an inference from known facts to the material of an object. A real certificate, e. g., on silver plate, is a sign applied to the object with the express purpose of making possible an inference concerning its silver content. This is done because the silver content may be of great interest to a prospective buyer. In the case of coins, however, the purpose of the stamp was to make the object usable as medium of payment for a debt of a certain magnitude.

Knapp is undoubtedly right in rejecting the certificate theory and in insisting on the inscription being the essential feature in the coins. But these reasons do not make it certain that the chartalist theory must be accepted in its entirety. Before discussing this question we have to take a look at the nature of bank-notes.

## b. Notes

Bank-notes originated as substitutes for coins made of precious metal. From the beginning they were

promises by a banker or a goldsmith, with whom a quantity of silver or gold had been deposited, to deliver the same quantity of the metal on demand. In the latter half of the seventeenth century such promises began to circulate as media of payment. They had a considerable advantage over coins in being more easy to handle, especially when great sums were involved.<sup>11</sup>

Very early the notes lost their character of exact substitutes for a precious metal; for they were issued in larger amounts than the quantity of metal actually held by the issuing bank. The idea was that the value of the notes depended on confidence in their being redeemed on demand; and the bank relied on the probability that only limited amounts would be presented for redemption at each time. For a long time it was widely held that notes ought to have no other support than the confidence in the issuing bank. This would force the bank to be careful not to incur more liabilities in the form of notes than could be met by its resources.

In our days notes are nowhere redeemable. It seems probable that the crisis of the early thirties put a definite end to the old system. The unredeemable note has come to stay.

In the U. S. and in Great Britain the text on the notes still includes a promise to pay. A Bank-of-England note of one pound, e. g., carries the inscription: "Bank of England

<sup>11</sup> Cf., e. g., Crowther, *An Outline of Money* 24 ff.; Baudin, *La Monnaie et la formation des prix* 237 ff.; Casters, "La nature monétaire du billet de banque" (*Mélanges économiques et sociaux offerts à Emile Witmeur*, 1936); Nöll von der Nahmer, "Aus der Frühgeschichte papierener Geldzeichen", *Schmollers Jahrbuch* 66 (1942).



Promise to pay the Bearer on Demand the Sum of One Pound." In many other countries this practice has been discarded. The inscription on the notes only indicates the issuing authority and the sum for which the note is to be medium of payment, e. g.: "Banque de France Mille Francs."

In substance the unredeemable notes are of one and the same kind, whatever the inscription says. These scrips of paper are manufactured and issued by a certain authority with the purpose of being, according to the law, media of discharging debts to the amount of the units mentioned in the inscription. The promise to pay, if such a promise still figures on the notes, is nothing but empty words. The issuing bank simply cannot pay for the note: there is nothing to pay with except similar notes; but to hand over another note in place of the one presented for payment makes no sense. It is true that the account of the customer could instead be credited with the amount of the note; or the central bank could give him a draft on a commercial bank. But payment in this form is certainly not being promised in the text on the note; and if it were promised, the debt could not be paid except by notes or new drafts, and so on. The promise "to pay" on unredeemable notes is, indeed, only a locution retained by force of habit and, perhaps, with the idea of assuring confidence in the notes.

The idea of notes being evidences of debts still colours much legislation on the subject, e. g., in the US (cf. Nussbaum 89 ff.). Many authors also use the traditional language, e. g., Hart, *Money, Debt, and Economic Activity* 10 f.; Murad, *Private Credit and Public Debt* (1954) 24, 31. Hawtrey, *The Gold Standard in Theory and Practice* (8),

says that an English bank-note represents a debt due from the Bank of England but adds after a few lines that the Bank's obligation has become "inoperative". Nussbaum rightly states that paper money has become practically inconvertible and no longer evidences a debt, the debtor having disappeared (79 f.).

The unredeemable notes, of which alone we need to take account now, are obviously of the same nature as our coins. Coins and notes differ only with regard to the material from which they are manufactured. But that is an insignificant point.

### c. Chartalism reviewed

Economists have often taken objection to Knapp's "State theory of money" on the ground that the State cannot impose the *value* of money by its commands. This criticism seems not, however, to be relevant. Knapp's theory is not a theory of the "value of money". It is a theory of the nature of money.

Knapp's insistence on the commands of the State as the sole fountain of money is somewhat one-sided. The State can hardly impose the habit of exchanging goods for money; this habit grows out of a number of circumstances besides the activities of the State. What the State can do, or rather, what can be done through legal regulation in this field, is to put at the disposal of commerce certain forms for placing oneself in such situations of constraint as constitute debts and certain media of releasing oneself from the constraint. It depends upon a number of social factors

whether, to what extent, and under what conditions, these vehicles of exchange are put into use.

The most essential question with regard to charlatism is, however, whether it is correct to define physical money as formed pieces legally valid as media of payment. The "validity" is spoken of as a property distinguishing "money" from other pieces of metal or bits of paper with similar appearance. But can really this validity be a property of an object?

In the language of Knapp "validity" doubtless means that the pieces *ought* to be received in payment of debts, or, in other words, that they are legally efficient means of discharging debts. But how could this be a property of the objects in question? On inspection we find only certain physical properties in the coins and notes. No "validity" as something besides these properties can be detected.

If a court of law has to decide a case where certain pieces have been tendered in payment of a debt but refused on the ground that they are not proper media of payment, the court cannot base its decision on the presence or absence of the quality of "validity". What the court has to do is to ascertain whether or not the pieces offered fulfil the requirements of the law for being media of payment. Usually there are statutory provisions laying down that certain pieces, the physical properties of which are described, shall be manufactured and issued to the public in a certain way and that they shall be employable as means of discharging obligations expressed in terms of a unit to which an inscription on their surface refers. The court reaches

its decision after a comparison between the description in the statute and the pieces offered.

Thus "validity" means nothing besides the physical properties of the pieces on the one hand and the description of the statute on the other. These two sets of circumstances form the basis of decisions as to whether certain pieces are to be accepted in payment or not. Very seldom have such decisions to be made by the courts. But they have continuously to be made by the public in their daily affairs.

Here the public relies on certain well-known physical properties in the pieces. Everybody is familiar with the current coins and notes in his country and with the idea that such pieces are good for the payment of debts to the amount of the number of units indicated in the stamp. A casual inspection is enough to satisfy us that we have to do with "real money". People have a more or less vague apprehension of there being some legal rules on the matter. But very few have anything approaching to an exact knowledge of these rules; and still fewer are those who could actually apply them in a given case. Only an expert can tell whether this coin or this note that I hold in my hand conforms to the requirements of the law (if it is not a case of crude forgery). But not even an expert can say for certain whether or not a piece that is true to its type has been manufactured and issued by the proper authorities.

No absolute certainty as to the origin of coins and notes is possible and it cannot, therefore, be necessary for the functioning of the monetary system. The

currency of every country probably contains some small proportion of forged coins and notes. It is only required to reduce the amount to insignificance by means of a number of technical devices and by threats of punishment for forgery. Furthermore, coins and notes may circulate as media of payment without the support of any legal prescription. This has happened in numerous instances.<sup>12</sup> There are even on record cases of knowingly forged coins being currently accepted as media of payment within a community.<sup>13</sup>

The conclusion from these facts must be that "money", in the sense of physical money, cannot, as the chartalist theory says, be defined as formed pieces with proclamatory validity. The terms of coins and notes, as used in ordinary language as well as in legal and economic writings, refer to physical objects with certain well-known characteristics without restriction being made to pieces manufactured and issued according to the laws of any particular country. We speak of Greek and Roman coins, of forged coins and notes, etc.

With legal media of payment we understand *certain kinds* of coins and notes, manufactured and issued according to the legislation of a country for serving as a debtor's means of releasing himself, unconditionally, from the situation of constraint implied in a debt. We take it for granted that such coins and notes in actual practice serve to this end because we implicitly assume the psychological efficiency of the legislation.

<sup>12</sup> See Nussbaum, *Money in the Law* 5 footnote 14 with numerous references.

<sup>13</sup> Carver, *Quarterly Journal of Economics* 21 (1907) 446.

Other coins and notes than those which, as far as can be ascertained, have been issued in the proper way, will not be allowed by the courts in the rare cases that come under their eyes. But some non-legal coins and notes may, nevertheless, as was pointed out, come to circulate among the public as media of payment. This simply means that legislation is not the only way of establishing such a psychological situation that creditors are induced to accept stamped pieces or bits of paper in payment of debts.

In the introductory chapter it was pointed out that one of the reasons for regarding a functional definition of "money" as unavoidable was the apparent impossibility of defining money by means of the physical properties of coins and notes. We can now see that this reasoning is based on a misconception. Coins and notes can only be described as physical things of a certain general appearance. But it can be added that within each country only specific kinds of coins and notes have been declared legal media of payment, though possibly certain other kinds of coins and notes may actually circulate as media of payment without support of the law.

## 2. *Book money*

Any money claim can be used for the payment of a debt — if the creditor assents to exchanging his original claim for the claim offered in payment. But only certain kinds of claims, which are currently used for payment, are comprised under the name of book

money. These claims are characterized by the highest grade of liquidity. They are (i) claims against money institutions, like banks, the solvency of which is held to be indisputable; (ii) payable on demand; (iii) not embodied in negotiable instruments; and (iv) transferable by means of drafts (usually in the form of cheques). For the sake of convenience we may speak of book money as identical with checking accounts with banks, bearing in mind that there are some other forms of similar claims.

Claims of this kind are superior to notes as media of payment in several respects. The payment of any amount can be made by means of one little bit of paper: no counting is required; payment may be very cheaply carried out at almost any place; the claim cannot be stolen; and it can be legally transferred only by its true possessor.

In ordinary language the cheque itself figures as the medium of payment. This it really is, in a certain sense; for it is a means of effectuating payment. But it is only an instrument for transferring a claim against a bank to the payee, and the payment is not completed until the cheque has been honoured by the bank. It is therefore more appropriate to say that the medium of payment is the account with the bank.<sup>14</sup>

Other kinds of claims with great liquidity have also sometimes been used as media of payment, most of all first-rate bills of exchange. The consent of the payee is, of course, required. There is, indeed, a gliding scale of liquidity which makes it perfectly defensible to

<sup>14</sup> Cf. Kerschagl, *Das Geld von Heute* (1949) 21 f.

speak of different grades of "moneyiness" in different claims.<sup>15</sup> But the highest grade of liquidity, including transferability by means of drafts, is of paramount importance for the use of a claim as a medium of payment. Only claims possessing such liquidity are currently used as media of payment and deserve the name of book money.

Traditionally, book money has been regarded as a mere substitute for cash, just as notes were held to be substitutes for gold. From a strictly legal point of view this is to some extent justified since it is the general rule that the creditor may insist on payment in cash. But a creditor very seldom makes use of this facility except in cases where no credit is granted (as in shop sales to unknown persons). Once credit has been accorded, payment by check is accepted as a matter of course. No positive agreement on the use of book money instead of cash is needed; and the courts, as was pointed out, have shown a marked tendency to narrow down as much as possible the application of the rule that the creditor may insist on receiving payment in cash. Finally, the payment actually made by book money is legally considered to be as valid as cash payment.<sup>16</sup>

Even from a strictly legal point of view, therefore, the substitute theory contains only half the truth. It would not be surprising if the legal situation came to be changed, by and by, through the inclusion of book

<sup>15</sup> Cf. Hart, *Money, Debt, and Economic Activity* 5; Hicks, *Value and Capital* (1948) ch. 13.

<sup>16</sup> Cf. above 37 ff.



money in the category of legal tender for certain purposes. Instances of this having been done are already to be found.

In Sweden, e. g., payment by postal cheque has been expressly sanctioned by law in cases of tax and rent. In the Soviet Union book money is the exclusive medium of payment in very important sectors of the economy. State enterprises receive their working capital in the form of book money, that is, deposits in the state bank, and they have to make their mutual payments by means of drafts on these deposits. This principle is an important instrument for exercising State control of production ("control by the rouble"). Cf. Condoide, *The Soviet Financial System* (1951) 28, 51 f.

In actual fact, as we know, book money constitutes the principal medium of payment with regard to volume in every modern community. The exchange of claims of lower liquidity for claims of the highest liquidity has largely taken the place of payment in cash.

Theoretically, all payments could be carried out without the use of cash. Book money could, indeed, be made the sole medium of payment.<sup>17</sup> Everybody would then receive his income in the form of drafts on a bank and pay for his expenses in the same way. But this would be so cumbersome as to be hardly feasible. Cash money is needed besides book money for two reasons: (i) to facilitate small payments, and (ii) to make possible instant payment by unknown persons and other persons who are not entrusted with

<sup>17</sup> This was already pointed out by Bendixen in *Geld und Kapital* (1912) 18. Cf. furthermore, e. g., Pietzsch, "Über das Wesen des Geldes" (*Weltwirtschaftliches Archiv* 59, 1944, 408); Coulborn, *A Discussion of Money* (1950) 28. The opposite view is maintained by Walker, *Das Buchgeld* (1951) 36, 60 ff., 80.

credit. Payment by transfer of claims on money institutions is extremely convenient for certain purposes; but book money has to be supplemented by physical media of payment, the usefulness of which is independent of the person of the bearer.

Book money, notes, and coins complete each other in making the procedure of payment easy and fitted for all kinds of situations. They have their different though overlapping spheres. As has often been pointed out the coin, which once and for a long time was *the* medium of payment, has been reduced to the role of small change; but even its successor, the bank-note, has suffered a similar fate; it also plays the part of change, while the big payments are almost exclusively effectuated by means of book money.

Book money differs essentially from notes. As was pointed out the notes no longer represent any real claims; they are only stamped pieces of paper of which certain kinds are usable within each country as media of payment. Book money, on the contrary, consists of real claims on money institutions.

A distinction must however be made with regard to book money. Hitherto, we have only had checking accounts with commercial banks in view; they undoubtedly represent real claims on these banks. But is all book money actually, or necessarily, of the same kind?

In order to clarify the matter we might think of a community where book money is the only medium of payment. Let us assume that there are a number of commercial banks and a central bank, every active

member of the community having a checking account with one or other of the commercial banks. These accounts would be the expression of real claims; for every bank would find itself in a situation of constraint over against its customers. All payments by private persons would be carried out through drawing cheques on one's account with a bank, i. e., by transference of claims on commercial banks. In the clearing, most of the inter-bank claims arising out of those operations would be cancelled. The residuary claims would have to be paid for through drafts by the debtor bank on its account with the central bank. But how could the central bank pay its debts under such a system?

The central bank might be able to transfer a claim on the central bank of another country to its own creditor. But this could only be done on a very limited scale; regular payment in this form would be unthinkable; the creditors of the central bank could not conceivably be entitled to such payment. Moreover, "payment" by transference of a claim against a foreign bank would not be payment in the exact sense of the word. Payment must be made in media referring to the unit in which the debt is expressed; if the debt is expressed in terms of pounds, it has to be paid with media of payment referring to the pound. Transference of a claim against a foreign bank would really mean a sale of foreign currency, the proceeds being used by the seller (the central bank) to set off against the customer's debt.

Occasionally, the central bank might pay a debt of

its own by transferring a claim on a commercial bank. But this could not be the general rule: such a transaction, moreover, would only postpone the question of payment by the central bank. It would affect the debt relations of the commercial banks; but the residuary debts, which could not be set off in the clearing, would always have to be paid by drafts on the central bank. Since the commercial banks would have to draw on their claims on the central bank for their mutual payments, the question how the central bank could honour these claims would always be recurring.

In fact, the central bank would not be able to pay these debts any more than it now can pay the nominal debts represented by its outstanding notes. The central bank would serve as the bank of the banks by opening accounts for them and letting them transfer these claims in their mutual payments. But it could never pay its own debts; for it would not have at its back a bank of a higher order on which it could draw.

This implies that the claims against the central bank would not be claims in the usual sense of the word. The central bank would not find itself in a situation of constraint of the usual type; for no executive action aimed at procuring payment of its debts could be taken against it. But there would be a substitute for it.

The directors of the bank would find themselves in a situation of constraint, although of another kind than that of ordinary debtors. The system would be unworkable unless certain rules and principles were established for the management of the bank. If credit

were extended without limits to commercial banks; if solvency were not a condition for obtaining credit; if the central bank would never demand repayment of loans made to other banks, and so on, the monetary system of the country would fall to pieces under the influence of reckless inflation. The central bank would have to be managed in such a way as to ensure at least some minimum degree of stability. A situation of constraint would arise for the directors of the bank from their being exposed to public criticism, to censure from the government, to the threat of dismissal and legal action, etc., in case of violation of the rules and principles laid down for their guidance.

In fact, the situation now existing in all advanced countries is fundamentally of this kind. The use of coins and unredeemable notes for certain spheres does not essentially alter the situation. The only difference is that the bank can now pay its own debts in its own notes (and to some small extent in coins). But this is of minor importance.

The core of the matter is that the debts of the central bank are not of the same nature as debts of a private person or even of a commercial bank. More accurately speaking, the whole debt situation is a different one. For a private person or a commercial bank the situation implies that he is under constraint to find media of payment to meet the claim of a creditor under the penalty of being exposed to sanctions. No such problem faces the central bank. But its directors find themselves practically constrained to follow certain principles.

A private person can, of course, assume debts to an unlimited amount. But nobody will be interested in his promises when these patently exceed his chances of honouring them; the liquidity of claims against him diminishes rapidly when he approaches a certain limit. The situation is similar for a commercial bank. For the central bank the position is wholly different. When it is not compelled to honour its debts by selling gold or foreign exchange, its solvency is perfect. Paradoxically enough the claims on the central bank are always good because they can never be honoured. Payment does not come into question, since there are no media of payment available. The whole debt situation is of a particular kind.

### 3. *The triple nature of the media of payment*

Persistent attempts have been made to describe the media of payment as being of one kind only. Usually this has been done by saying that all money claims are claims *for physical money*. The only true money is then physical money, book money consisting in money claims. But it also happens that the matter is turned the other way round and all money is held to consist in claims on the central bank, physical money being evidences of claims on the central bank.

Both contentions are erroneous. Money claims cannot be characterized as claims for physical money; and physical money — coins and bank-notes — represent no real claims.

In an article on the nature of money in the *Weltwirtschaftliches Archiv* (69, 1944) A. Pietzsch writes after having discussed book money:

"All money depends on book-keeping measures. (*Alles Geld ist Buchung.*) A book-keeping measure refers to a certain name. Theoretically, all payments could be effectuated in this way ... But this way of making payments would be too cumbersome in many circumstances. Therefore the State interferes once more in the monetary system by letting people exchange name-deposits with the central bank for deposits appertaining to the carrier. Such deposits are notes ... (*Solche Inhaberbuchungen sind die Banknoten.*)"

It seems only to be twisting the language to characterize notes as a kind of bank-deposit. The underlying idea is that the notes represent claims on the central bank. But they do not represent real claims; and it is essential for the notes that their use as media of payment do not entail any book-keeping measures on the part of the issuing bank. Why then call them "Inhaberbuchungen"?

The preceding discussion shows that the media of payment fall into three categories: (i) physical money, coins and notes, which are signs representing numbers of monetary units; (ii) checking accounts with commercial banks, representing real claims on these banks; and (iii) checking accounts with the central bank, which do not represent claims in the usual sense of the word.

Categories (i) and (ii) come much more close to each other than is apparent at first sight. A bank simply opens a checking account for a customer by writing certain figures in its books and signifying its readiness to make further notations, according to

certain rules, at the request of the customer. In the case of notes the figures are printed on bits of paper that are handed over to the customer, no notations in the books of the bank being required each time a note is used for payment of a debt. The difference is a technical one. In both cases the essential thing is the manipulation, according to certain rules, with figures representing sums of monetary units — the figures may be written in books of account or be printed on separate bits of paper. Categories (ii) and (iii) are also, of course, very similar, the distinction between them resting on the difference of the debt situation of a commercial bank and the central bank.

#### 4. *The debt pyramid as mediating exchange*

The most striking feature of the history of money is, perhaps, the gradual immaterialization of the media of payment. The process starts, as Knapp says, when coins begin to circulate according to tale and not to weight. The full-bodied coins eventually disappear and their place is taken by the notes. The material from which the notes are made is irrelevant; it has only to be convenient for the manufacturing and handling of pieces carrying an inscription that refers to a sum of monetary units. The same is true of the remaining coins. Both coins and notes have the character of mere signs with a certain social usability.

The physical media of payment may therefore be said to have been immaterialized half-way. Still more important is their reduction to a subsidiary role by



the emergence of the wholly non-material book money as the greatest medium of payment. If we assume that the exchange was from the beginning an exchange of material objects for material objects, we now find that the development has led to the exchange being essentially an exchange of material objects for claims stated in terms of monetary units.

Coulborn writes, *A Discussion of Money* 18: "The great bulk of our concrete money consists neither of coin nor of notes but of — nothing! Means of payment of this sort possess names, however: they are called deposits, or cheque-deposits, or bank deposits, or bank balances. It is a striking paradox that the majority of the 'concrete' money of our times should have in fact no concrete existence at all, but so it is. Once deposits possessed concrete embodiment; but the bodies so to speak have withered away and only the tale of their passing remains!" On a subsequent page (22) the author calls bank deposits "nothing-money".

This language is hardly fortunate. Bank deposits, of course, have no material existence. But the claim-debt situation is something very real. Every debtor finds himself in an actual situation of constraint; and every creditor has a corresponding power. These relationships are as factual as a person's belonging to a linguistic or political community.

The possibility of extensively using money claims for the discharging of monetary obligations depends on the existence of a vast structure of interlacing claim-debt situations. A true "debt-pyramid" has slowly come into being with the rise of the money economy, and has assumed enormous proportions in our present society.<sup>18</sup> The pyramid, consisting of a varied

<sup>18</sup> Murad employs the expression "credit-pyramid", *Private Credit and Public Debt* 37.

assortment of long and short-term debts with different degrees of liquidity, remains, while changes are constantly going on within it. The use of book money requires a relative stability in the whole system. In business transactions people proceed on the assumption that the continued existence of the debt pyramid will make it possible to go on exchanging goods and services for claims that may again be exchanged for goods and services, and so on. In a certain sense the pyramid of debts could be called the principal medium of exchange in our time; for it is the great mediating factor in the exchange of goods and services.

Thus the debt pyramid has supplanted the metal. The modern economy has been built with the help of the debt system; it was necessary to discard the metal in order to make the economy grow. Ours is a debt economy in contradistinction to the more primitive metal economy. Physical money is needed only because there are many cases where the transference of goods or the performance of services has to be completed without leaving a debt in its trail.

## IV

### MONEY OF ACCOUNT AND MONEY OF PAYMENT

In the stamp on coins and notes reference is made to a unit such as the dollar or the pound. This unit must evidently be distinguished from the coins and notes themselves. The "dollar" is not the same thing as the dollar piece; the "pound" is not identical with a sovereign or a one-pound note. The inscription "one dollar" or "one pound" is applied on a piece of metal or paper in order to make it a medium of payment. In whatever way the unit is to be defined, it cannot be identical with the coins or the notes.

No more are the claims used as media of payment identical with the units in which they are expressed. The claim-debt relation is a situation in which that which is to be procured for the creditor is defined as a sum of dollars, pounds, or the like. In expressing the obligation of the debtor in this way we seem to suppose the existence of the unit. First, therefore, comes the unit, in which debts are fixed; then comes the medium of discharging the debts.

This distinction is often stressed by modern writers, even if both the units and the media of payment are called "money". Keynes begins his discussion of money by saying:

*Money-of-Account*, namely that in which Debts and Prices and General Purchasing Power are *expressed*, is the primary concept of a Theory of Money . . .

Money itself, namely that by delivery of which debt-contracts and price-contracts are *discharged*, and in the shape of which a store of General Purchasing Power is *held*, derives its character from its relationship to the Money-of-Account, since the debts and prices must first have been expressed in terms of the latter . . .<sup>1</sup>

Keynes follows Hawtrey, who strongly emphasizes that the concept of money (in the sense of legal tender currency) is based on that of the ideal unit or the money of account. The idea of money, he says, is derived from the idea of a debt.<sup>2</sup> The meaning is that a debt is expressed in a number of ideal units, money being the means established by law (or custom) for the extinction of a debt:

Money, being essentially that with which debts can legally be discharged, must be reckoned in the same units as debts. These familiar units form what is called our "money of account" . . . The money of account must exist before the money.<sup>3</sup>

This relationship between the ideal unit or "unit of value" and money (in the sense of legal tender) was

<sup>1</sup> *A Treatise on Money* I (1930) 1.

<sup>2</sup> *Currency and Credit* ch. I; *The Gold Standard in Theory and Practice* (5th ed., 1947) 2; the article "Money" in the *Encyclopaedia of the Social Sciences*.

<sup>3</sup> *The Gold Standard in Theory and Practice* 7 f. Cf. Hawtrey, *Economic destiny* (1945) 72: "Once debts had been established as an essential part of the economic system, the monetary unit came to be primarily the unit for the reckoning of debts. By law money is defined in terms of its debt-paying power. When a coin or a note is assigned a specific value, the prior existence of the units in which the value is stated is presupposed."

presupposed by Knapp in his *Staatliche Theorie des Geldes*. The State, according to Knapp, arbitrarily fixes the unit of value, money consisting of pieces that have proclamatory (i. e. legal) validity as means of discharging obligations expressed in terms of the units of value.

In fact, *two concepts of money* are in common use in modern literature: money of account and money of payment. But there is considerable lack of clarity on this point. Neither is the terminology uniform, nor is there any general agreement on the significance of the distinction itself.

The conception of money of account has received surprisingly little attention, considering its fundamental importance in monetary theory. Even the term "money of account" is rarely explained; it is used in such a way that its meaning is supposed to be well known.

Hawtrey explains the origin of the term from the necessity of keeping an account when a debt incurred by a buyer is not immediately discharged by delivery of money but left outstanding.<sup>4</sup> Since no material is adduced in support of this hypothesis, it is impossible to judge whether there are facts to support it. In any case it seems difficult to understand how the necessity of keeping accounts of business transactions could have called forth the expression "money of account". Accounts are also kept of obligations to deliver goods; but people have never spoken of wheat of account or coal of account in contradistinction to the wheat or

<sup>4</sup> Article "Money" in the *Encyclopaedia of the Social Sciences*.

coal by means of which the obligation of the seller is fulfilled. Such expressions would indeed be senseless, since there is no difference in kind between the wheat or coal to be delivered and that referred to in the accounts. The term money of account can hardly have been invented for any other purpose than that of denoting *another kind of money* than the money used for payments.

The expression dates back at least to the 18th century; probably it is much older. During the Middle Ages and the first centuries after, the circulating media of payment were often coins of many kinds that were valued according to their metal content. It was therefore thought advisable by the merchants to fix prices and debts in a currency that was widely used and considered stable. Venetian ducats, e. g., were employed for this purpose, while it was expressly or tacitly agreed that payment was to be made in local currency at its rate of exchange with Venetian ducats.<sup>5</sup> It is easy to understand why Venetian ducats in such cases came to be called "money of account" as opposed to the money in which payment was to be made.

The "money of account" need not even be in circulation; it may be a sort of money that was no longer coined or used for payments, as was the case with "le vieil écu" in France.<sup>6</sup> Later on, stabilized

<sup>5</sup> Cf. Eucken, *Die Grundlagen der Nationalökonomie* (1950) 258 with references.

<sup>6</sup> Hans van Werveke, "Monnaie de compte et monnaie réelle" in the *Revue belge de philologie et d'histoire*, 13 (1934) 123—152. Cf. Marcel Bloch, "La monnaie de compte" in the *Annales d'histoire économique et sociale* vol. 7 (1935) 323 ff.

moneys of account were created by the giro banks of Amsterdam (1609—1705) and Hamburg (1619—1873). The florins and marks of these banks were never minted; they represented certain quantities of silver deposited with the bank. On depositing silver, a merchant received so and so many florins or marks on his account; his payments to other merchants were then effectuated by means of assignments on the account with the bank.<sup>7</sup> Prices and debts could, of course, also be expressed in florins or marks by persons having no account with the bank; the florin or the mark then served merely as a means of calculation, and payment was supposed to be made in the local currency according to the rate of exchange.

It seems highly probable that the origin of the term money of account (*Rechengeld, monnaie de compte*) is to be found in this practice of expressing prices and debts in another currency than that contemplated as means of payment. The two moneys might be of the same general character, the money of account only being held in higher esteem than the local currency intended for payment. But the money of account might also be a money without physical existence in the shape of coins.

In a famous passage Montesquieu mentions the macutes of the inhabitants of the Portuguese colony Angola as an example of a purely ideal monetary unit. The same example has often been used by later writers. Montesquieu seems,

<sup>7</sup> Landmann, "Banking, Commercial, History to the Close of the Eighteenth Century" in the *Encyclopaedia of the Social Sciences* (with references).

however, to have been mistaken on this point. According to A. Sommer, who has devoted a special study to the question, the macute was a piece of clothing that was used as medium of payment. ("Die Makute, ein Irrtum der Geldlehre", in the *Jahrbücher für Nationalökonomie und Statistik*, vol. 131, 1929).

Still the term "money of account" is sometimes used to denote the currency in which a debt is expressed when it is to be discharged in another currency.<sup>8</sup> Generally, however, in modern literature the term signifies the monetary unit, or sums of that unit, as distinguished from physical media of payment. For this reason it has become usual to speak of two kinds of money as belonging to the same monetary system: money of account and money of payment. The distinction is that between the pound and the sovereign or between the dollar and the dollar piece. The sovereign or the dollar piece is a physical thing; the pound or the dollar, on the contrary, has no physical existence.

The two money concepts are actually used in common language. When we say that a person owes 1,000 dollars to another, we do not mean to say that he is bound to deliver 1,000 dollar pieces; and when we say that a person's fortune amounts to 1,000,000 dollars, the meaning is not that he possesses a pile of dollar pieces. In both cases the dollars are "ideal dollars" as opposed to coins and notes. The word "money" is currently used in ordinary speech for both

<sup>8</sup> Mann, *The Legal Aspect of Money* (2. ed. 1953) 158: "The money of account is that currency in which an obligation is expressed, while the money of payment is the currency with which the obligation is to be discharged."



kinds of money without people being aware of the difference between them.<sup>9</sup>

In scientific thinking the distinction must be clearly brought out and a suitable terminology is desirable. Though this has been felt by many authors, considerable confusion still prevails in this field.<sup>10</sup>

As to the substance of the matter, many authors persist in saying that one and the same thing, "money", functions both as a medium of payment and as a measure of value (including that of standard of payments).<sup>11</sup> Others have maintained that one and the same thing cannot have both functions. It has especially been stressed that "money" as a measure of value cannot be identified with coins and notes; the measuring of value requires an ideal standard. This point was forcefully put by Bendixen:

One and the same thing cannot at the same time be something abstract and something concrete. Correctly we ought to say: The word money denotes two different things, firstly the abstract unit of value, and secondly the concrete medium of payment. What is taught today is no better than the joke that the stars have two functions: that of celestial bodies and that of decorations.<sup>12</sup>

<sup>9</sup> Cf. Wagemann, *Allgemeine Geldlehre* I (1923) 70.

<sup>10</sup> Cf. Murad, *Private Credit and Public Debt* (1954) 24 f. Howard Ellis says that ordinary and scientific usage sanctions the differentiation and not identification of money and the accounting unit, *German Monetary Theory 1905—1933* (1937) 40. This seems to be going a little too far. The difference is hardly recognized in ordinary usage; in scientific usage there is at least no consistent terminology.

<sup>11</sup> Thus Crowther, *An Outline of Money* (1942) 35; Howard Ellis, *op. cit.* 105.

<sup>12</sup> *Geld und Kapital* (1912) 23.

The distinction between the two kinds of money was also clearly enunciated by Koopmans:

Money is not a uniform but a dualistic phenomenon: "medium of exchange" or "medium of payment" on the one hand and "unit of value" or "unit of account" on the other hand are not two "functions" of one and the same thing, "money", but rather two different objects of knowledge.<sup>13</sup>

A similar view is propounded by R. H. Lounsbury:

Cherished in contemporary monetary discussion is the classical doctrine that money is concrete and definable in terms both of the "medium" and "standard" function . . . A commodity and credit chosen for the purpose serve as media of exchange; the unit of account . . . performs the "standard" function. These facts being so, money cannot serve both as a medium of exchange and as a standard of value. Defined as a medium of exchange, money does not perform the "standard" function; defined as the unit of account, money does not serve as a medium of exchange.

The difference, according to Lounsbury, is the same as the difference between a yard and a yardstick.<sup>14</sup>

Other authors take an intermediate standpoint; they talk both of two different things and of one and the same thing performing different functions. Coulborn says for instance

We define money as the means of valuation and payment: on the one hand money is the abstract unit of account, the mathematical apparatus used to express price; and on the other hand money is the concrete medium of exchange, the thing given from one person to another in payment.

Here, indeed, two different concepts of money are

<sup>13</sup> In Hayek's *Beiträge zur Geldtheorie* (1933) 247.

<sup>14</sup> *The American Economic Review* (1937) 765.

brought out. The abstract unit of account is evidently something else than the things given in payment. But in the following the author says:

It may seem strange that money is both a varied collection of concrete things upon the one hand, and on the other, an abstract set of units. But so it is. Some authorities, fearing confusion between the one sense and the other, avoid the word money and make use of two special terms, namely means of payment and monetary units. By the expression means of payment such writers intend to describe money in its concrete form; by monetary units they mean to indicate the abstract use. At times we shall find it useful to speak in these ways. Yet in general little chance exists of confusion between money in its physical and money in its mental manifestations; moreover, since we are used to both, whether we realise the fact clearly or not, there is advantage in using in both senses the one word money.<sup>15</sup>

In substance the distinction between the two concepts is recognized; but it is blurred by the terminology which comprises both kinds of money under the same word and by such expressions as "money" having two "manifestations".

It is often said that the monetary unit was first recognized by Knapp as a separate concept.<sup>16</sup> This is hardly correct. The notion of a money of account as distinguished from the money of payment appeared much earlier in the discussion of money. As proof of this it is only necessary to cite Sir James Steuart's *Principles of Banks and Banking of Money*:

"The first thing therefore to be done in treating of money, is, to separate two ideas, which, by being blended together,

<sup>15</sup> *A Discussion of Money* (1951) 2 f.

<sup>16</sup> Wagemann, *Allgemeine Geldlehre* 71; Howard Ellis, op. cit., 49.

have very greatly contributed to throw a cloud upon the whole subject.

Money, which I call of account, is no more than *an arbitrary scale of equal parts, invented for measuring the respective value of things vendible.*

*Money of Account* therefore is quite a different thing from *money-coin*, and might exist, although there was no such thing in the world as any substance, which could become an adequate and proportional equivalent for every commodity.”<sup>17</sup>

The terms used for the unit are — besides money of account — ideal unit, unit of account, unit of value, and monetary unit.<sup>18</sup> Some authors prefer simply to use the word money for money of account. This terminology is based on the idea that the money of account is the real and true money.<sup>19</sup>

J. R. Commons, *Institutional Economics* 473, 476 employs the expression “money of account” for such media of payment as consist of claims. This language cannot be recommended. It is based on the erroneous identification of *claims* with the *units* in which claims are expressed.

For the media of payment, too, several terms are used. Keynes employs the expression “money itself” or “money proper” for physical media of payment.

<sup>17</sup> *Principles of Banks and Banking of Money* (1812); quoted from Butchart, *Money, Selected Passages presenting the Concepts of Money in the English Tradition 1640—1935* (1935) 276.

<sup>18</sup> Sometimes the unit is said to be an “ideal” one in the case of inconvertible paper money systems. This language is based on the assumption that the unit is a “real” one in the case of currency systems based on a precious metal. Thus T. E. Gregory in the *Encyclopaedia of the Social Sciences*, art. “Money” p. 603. Cf. below ch. V.

<sup>19</sup> Thus Liefmann, *Geld und Gold* (1916) 90; Murad, *Private Credit and Public Debt* 24; Lukas, *Geld und Kredit* (1951) 14.

Often they are simply called money.<sup>20</sup> This terminology is natural for jurists. The term "currency" sometimes denotes media of payment in general, but sometimes physical media of payment as opposed to book money. Economists are naturally inclined to comprise book money under the term "money".

Thus we can see that the use of the word "money" varies widely. At least four different meanings are attached to it:

1) The word signifies both money of account and money of payment without any distinction being made between these two concepts. Until recently this use was common, since the distinction between two moneys was unknown or at least not generally recognized.

2) Though the two money concepts are differentiated, one and the same word money is used to denote both of them.

3) The word is used for money of account in contradistinction to media of payment.

4) It is used for media of payment in contradistinction to money of account, either for all media of payment or for physical media of payment.

The unit in which debts are expressed is here called the *monetary unit* or the *ideal unit*. It further seems appropriate to use the term *money of account* to signify *sums of monetary units* and *money of payment* to indicate the means of releasing debtors, whether these media are coins and notes or claims.

<sup>20</sup> Thus Nussbaum 16.

In the introduction it was pointed out that a dilemma seemed to exist. On the one hand, it appeared to be necessary to define money as the medium of payment. On the other hand, this definition had the appearance of being circular, since payment is discharge of a monetary obligation.

The dilemma is now solved. There is no circularity in defining "money" as the medium of payment. We have two concepts of money and the one is defined by means of the other.

Debts are monetary obligations in the sense that they are expressed in terms of monetary, or ideal, units. The concept of "money" in the sense of ideal units is presupposed in defining "money" as media of payment; for media of payment are means of discharging obligations expressed in terms of monetary units. Thus the concept of "money" in the sense of medium of payment is defined by means of the concept of "money" in the sense of an ideal unit.

The primary concept of the theory of money is undoubtedly that of the ideal unit. But nothing is more obscure in the theory of money than the nature of the monetary unit. The unit proves strangely elusive when one tries to get hold of it.

## V

### THE MONETARY UNIT

In ordinary language, as well as in economic and legal writings, the monetary unit is spoken of in two ways: as something in which debts are expressed, and as something in which values are assessed. Employing a couple of familiar terms we may say that the monetary unit, as it is being used in current language, has two functions: that of a standard of payment and that of a measure of value.

In both respects, we count numbers of monetary units: the debts amount to so and so many units; the value of an object is expressed in terms of such units. We seem to be counting numbers of these units just as we count people, cattle, apples, or anything else; and the counting is, of course, essential for our use of money.

In this counting, we seem to assume that the units really exist. How else could they be counted? Monetary calculations do not consist in mathematical operations with abstract numbers; they are concerned with numbers of something: monetary units. But how are these units to be conceived?

The problem has long been debated, though hardly ever at any considerable length. Some brief remarks

are generally considered to be sufficient. Many are those who are apparently quite unaware of any problem being hidden here.<sup>1</sup>

The theories on the monetary unit can be divided into two groups under the names of *metallism* and *nominalism*. The metallistic theory has few adherents in our days. But it has considerable historical importance since it forms the background of the nominalistic theories.

### 1. Metallism

Metallism was almost exclusively dominant during the age of the classical gold standard. According to this theory the monetary unit is a name for a certain quantity of the money metal, i. e., the quantity contained in the standard coin. A "pound", for instance, was held to signify  $113 \frac{1}{623}$  grains of pure gold; for this was the gold content required by law in a sovereign, which was the legal medium of payment for a debt of one pound sterling.

Metallism is the most important form of the *commodity theory* of money, according to which money is a commodity which, for reasons of practicability,

<sup>1</sup> As far as the present author has been able to find, there exists no monograph on the subject. Not even Knapp's work can be called a monograph on the monetary unit; it is mostly concerned with the media of payment. Some papers have been devoted to the problem of the nature of the unit: A. Sommer, "Das Geld und die Erscheinungsformen der Geldeinheit" in *Jahrbücher für Nationalökonomie und Statistik* 130 (1929); F. Wilken, "Die Phänomenologie des Geldwertbewusstseins" in *Archiv für Sozialwissenschaft und Sozialpolitik* 56 (1926); A. Murad, "The Nature of Money" in the *Southern Economic Journal* IX (1942-43).



has been chosen as a medium of exchange, the precious metals being particularly well suited to serve this purpose owing to their high value, homogeneity, and divisibility. The value of the money commodity is held to be regulated by the same laws as the value of other commodities.

From the point of view of the metallistic theory there is only one kind of money in existence. No distinction between a money of account and a money of payment can be made.<sup>2</sup> Debts are held to be expressed in quantities of the money metal and payment made by delivery of the quantity required.

The Bullion Committee of 1810 held the pound sterling, being the standard of value, to be identical with a quantity of gold, at least according to the intention of the legislature. (*Report from the Select Committee on the High Price of Bullion*. 1810, 5. The committee had some doubts whether gold was really the standard of value since the suspension in 1797 of cash payments by the Bank of England, *ibid.* 7.) The same idea was strongly emphasized by Sir Robert Peel in the debates in the House of Commons of 24. 5. 1819 and 6. and 20. 5. 1844: "That which is implied by the word 'Pound' is a certain definite quantity of gold, with a mark upon it to determine its weight and fineness"; the engagement to pay a Pound meant "nothing else than the promise to pay to the holder . . . that definite quantity of gold". (Cf. Hawtrey, *Currency and Credit* 418 f. and above 31.)

Jevons, *Money and the Mechanism of Exchange* (23. ed. 1910) 67 ff.: "It is essential to decide clearly what we mean by a *standard unit of value*. This must consist of a fixed

<sup>2</sup> As Hawtrey says with regard to certain proponents of the metallistic theory: "They missed the conception of a money of account as something distinct from the legal tender money" (*Currency and Credit* 419).

quantity of some concrete substance, defined by reference to the units of weights or space . . . All we can say, then, is that the standard unit of value is some entirely arbitrary weight of the standard metal."

Carl Menger defines the monetary units, in their capacity of standards of value, as definite amounts of certain metals used for coinage (*Collected Works* IV, 1936, 38 footnote 3).

The metallistic theory refers only to the monetary unit in a system based on a metallic standard; it is clearly inapplicable when the media of payment consist of coins of negligible commodity value, unredeemable notes, and book money that does not represent any metal. At any rate the theory is obsolete; it has no bearing on present monetary systems. But it is of interest to inquire whether or not it is a correct interpretation of the facts under the reign of the gold standard.

We have already touched upon this question in connection with the discussion of the nature of the media of payment. It was pointed out that even the full-bodied gold coins were chartalist. The legal medium of payment was not gold as such but gold coins; only gold in the form of these stamped pieces were, by force of law, legal medium of payment. This is an important distinction. The coins had not to be weighed when used for payment; they were legal media of payment regardless of abrasion as long as their weight had not sunk below the minimum point — if any such point was prescribed.

Debts were expressed in monetary units; exactly in the same way as nowadays, and not in quantities of

gold. They were discharged, just as now, by means of legal tender and book money, the only difference being that gold was to be the material used in manufacturing the pieces destined to be legal media of payment. Many a time during the history of the gold standard this provision was suspended, and the redemption of notes stopped. Did this signify a change of the monetary unit over night? That is hard to conceive. Before, as after, the suspension of the gold standard debts were fixed in pounds, dollars, etc. Only the composition of some media of payment and the right to exchange some media of payment for others composed of gold were subject to change.

These considerations are sufficient to throw doubt on the metallistic theory even as applied to the gold standard. Most important, however, is the following. The price of gold was expressed in monetary units. But how could this be, if the monetary unit was a quantity of gold? The price of one ounce of gold would then have been fixed at — one ounce of gold. All talk of a price of gold would have been a meaningless concatenation of words. But it was not really meaningless. One could speak of the price of gold with as good sense as one could speak of the price of any other commodity. To sell gold was not simply to exchange gold for gold. In that case nobody would have been inclined to sell gold since nothing would have been changed through such a transaction. Actually, the selling of gold implied the exchange of a promise to deliver gold for a promise to pay an amount expressed in monetary units. The ultimate result of the

transaction was to put the buyer in possession of the gold and the seller in possession of a certain amount of media of payment. A significant change, therefore, took place with regard to the position of both parties; and the mutual benefits expected from this change were the inducement for making the bargain.

The essential thing in the gold standard was a standing offer by the central bank to buy and sell gold to unlimited amounts at a fixed price. If we disregard the differences between the various forms of the gold standard, the system can therefore be characterized as a peculiarly rigid form of price-regulation on a single commodity — gold.<sup>3</sup> But price-regulation requires a unit in which prices are expressed; and these units cannot be quantities of the commodity the price of which is to be indicated. Consequently, the identification of the monetary unit with a quantity of gold was erroneous. Even under the gold standard the monetary unit had to be defined in some other way.

Pure metallism implies the identification of the monetary unit with a quantity of gold or silver. But the theory has also taken another form, not always clearly distinguished from the first one. The unit has been regarded as identical, not with a quantity of

<sup>3</sup> It has often been pointed out that the essence of the gold standard in its various forms is a price-regulation on gold; see, e.g., Knapp, *Staatliche Theorie des Geldes* 68 ff.; Bendixen, *Geld und Kapital* 36; Cassel, *The Theory of Social Economy* 372; Hawtrey, *The Gold Standard in Theory and Practice* 20; "The essence of the gold standard is that the price of gold, the value of gold in monetary units, is fixed by law . . ."

precious metal, but with the *value* of such a quantity.<sup>4</sup> By "value" is then meant value in exchange, or "purchasing power".

In this form metallism has been held to be applicable to the situation prevailing since the general abandonment of the traditional gold standard in the beginning of the thirties. A link with gold was preserved through the American legislation of January 1934 fixing the "gold content of the dollar" at 13.71 grains. Since that time the government of the United States, by order of the president under the said legislation, stands ready to buy and sell gold at a fixed price of 35 dollars an ounce, importation and exportation of gold being permitted.

On the basis of these facts it has been contended that the dollar is *the value of*  $\frac{1}{35}$  ounce of pure gold.<sup>5</sup> A great many other monetary systems are linked to the dollar system through the Bretton Woods agreements and the practice of the central banks.<sup>6</sup> If the theory were correct, the respective monetary units belonging to these systems could also be defined as identical with the value of certain quantities of pure gold. The gold value theory of the monetary unit would be applicable to all countries adhering to the Bretton Woods system.

<sup>4</sup> Cf. Murad, *Private Credit and Public Debt* (1954) 20 f.

<sup>5</sup> Thus Kemmerer, *Gold and the Gold Standard* (1944) 139: "The gold dollar, which is our American unit of value, is whatever value is attached at a particular moment to a fixed weight of pure gold, now, one thirty-fifth of one ounce Troy. This value, like the value of anything else, is a continually changing thing..."

<sup>6</sup> Cf. Nussbaum in *The American Journal of Comparative Law* 3 (1954) 360 ff.

The theory rests, however, on the assumption that the value, or purchasing power, of gold in a free international market is given prior to, and independently of, the action of the U. S. government in buying and selling gold. Otherwise, it would be impossible to maintain that the dollar is an expression of the value of a quantity of gold in the free market. But such an assumption is evidently fallacious. The free international market for gold is a fiction. Besides certain more or less black markets, which do not count in this connection, there is an official market regulated by agreements between a number of co-operating countries with the U. S. as the leading power. In this market the price of gold is maintained at about 35 dollars an ounce by the action of the U. S. government. This is made possible by the predominating magnitude and strength of the American economy. By selling gold to the U. S. government a foreign country acquires media of payment expressed in dollars, which means purchasing power on the American market and on every market where dollar media of payment are accepted; this is the important thing. If gold were not a reliable means of obtaining dollars, it is very doubtful what its purchasing power would be.

It therefore means turning things upside down to say that the dollar is an expression of the purchasing power of  $\frac{1}{35}$  ounce of gold.<sup>7</sup> On the contrary, the price of  $\frac{1}{35}$  ounce of gold is one dollar; and for this reason the purchasing power of  $\frac{1}{35}$  ounce of gold may be said to be equivalent to that of one dollar.

<sup>7</sup> Cf., e. g., Coulborn 325.

It would be within the power of the U. S. government to raise the price of gold to, say, 40 dollars an ounce. In this way the indirect purchasing power of gold, sold on the official market, would increase proportionately; but the purchasing power of dollar media of payment in other commodities than gold would probably not be greatly affected. If the American government stopped buying gold, the world price of gold would begin to move in a way that can hardly be foreseen. Some repercussions on the American price level would ensue; but the American monetary system would remain the same.

The gold value theory is as untenable as pure metallism. The theory does not imply a correct definition of the monetary unit under any system where debts are expressed in units as pounds, Marks, dollars, etc., and paid for by physical objects circulating according to tale and not to weight or by the transference of claims that need not be honoured by delivery of metal. In our present world, the inadequacy of the metallistic theory is particularly obvious.

The desire to keep the purchasing power of money stable, and to remove the direction of monetary policy from the direct control of the government lies at the back of the metallistic theory. But the tenacity with which this theory has been maintained in spite of the arguments long marshalled against it can hardly be explained by the political motive only. The monetary system could be linked to a precious metal by means of a price-regulation without the monetary unit for

that reason being identified with a quantity of metal (or with the "value" of a quantity of metal). There is another motive, too, behind the metallistic theory. This is the intellectual difficulty of apprehending the monetary unit if it is not a quantity of metal.

A modern author says, e. g., that we cannot conceive the "money of account" as a purely ideal standard; it must have "a base in reality".<sup>8</sup> In the debates on the report of the Bullion Committee in 1811 Canning said that the only intelligible definition of a pound sterling was that of "a certain specified weight of gold or silver of a certain fineness". This, as Hawtrey points out, was at a time when the Bank of England did not redeem its notes in gold and the pound was depreciated by about 20 % in terms of gold.<sup>9</sup> Sir Robert Peel is reported to have said that he "could not, by any effort of his own understanding, form any other idea of a pound sterling but a certain determinate weight of gold metal".<sup>10</sup> His opinion is probably shared by many others. The natural man is still a metallist, says Crowther, not without justification.<sup>11</sup>

The intellectual difficulty in abandoning metallism played, indeed, a prominent part in the historic debates in the House of Commons on the report of the Bullion Committee in 1811. Lord Castlereagh

<sup>8</sup> Baudin, *La monnaie et la formation des prix I* (1936) 198. Sommer says in the article on the monetary unit cited above in footnote 1 that it must be possible to apprehend the unit in a commodity.

<sup>9</sup> *Currency and Credit* 419.

<sup>10</sup> Glenday, *The Economic consequences of Progress* (1934) 73.

<sup>11</sup> *An Outline of Money* (1945) 18, 320.



vigorously attacked the metallistic theory with lucid arguments. He defined the pound sterling as "a sense of value in reference to currency as compared with commodities".<sup>12</sup> Mr. Thomas Smith, a witness before the Bullion Committee, who has become famous in the history of monetary theory, denied that the pound sterling was a quantity of gold. He found it very difficult to say what it was; "but every gentleman in England knows it", he added. Pressed for a more precise answer he said that the pound sterling "is something that has existed without variation in this country for eight hundred years — three hundred years before the introduction of gold".<sup>13</sup>

Both Lord Castlereagh and Mr Thomas Smith were proponents of the theory now called nominalism, or the theory according to which the monetary unit is defined without reference to a commodity. Their weakness was the vagueness of the definitions they proposed. This vagueness has remained a common feature of the various nominalist theories until our time.

## 2. *Nominalism*

The first great attack in modern times on the metallistic theory came from G. Fr. Knapp in the

<sup>12</sup> He is cited by Canning as having said so, Hansard, *Parliamentary Debates*, May 6—8, 1811. The words are not found in the record of Lord Castlereagh's speech but were perhaps contained in his pamphlet on the subject.

<sup>13</sup> Cited by Mr. Robert Peel, as he then was, Hansard, May 24, 1819. Cf. Hawtrey, *Currency and Credit* 417 ff.; Nussbaum, *Money in the Law* 4 f.; Mann, *The Legal Aspect of Money* 40 ff.

famous work where he set forth the State Theory of money. The book was inspired by the experience of the successful management of a paper currency in Austria during the last quarter of the 19th century. This experience seemed to refute the thesis that the abandonment of the metallistic principle must necessarily lead to disastrous consequences.

In Knapp's theory the monetary unit is defined *historically* through reference to an older unit. Other nominalists are not always very explicit in their brief statements on the nature of the monetary unit. In the main their opinions are on the same lines as the ideas of Lord Castlereagh and Mr Thomas Smith respectively: either the unit is explained as being a "*unit of value*" or it is described as being *undefinable*.

#### a. The historical definition

The theory of Knapp concerning the monetary unit — which he calls the unit of value — is intimately connected with his chartalist theory of the physical media of payment. Chartalism implies that coins and notes are stamped or engraved pieces which by force of law are media of payment for the number of units indicated on their surface, the material from which the pieces are made being irrelevant. The monetary unit is also fixed by law. The central idea is that both the unit, in which debts are expressed, and the media of discharging debts are (arbitrarily) called into being (*geschaffen*) by the State.<sup>14</sup>

<sup>14</sup> Knapp's theory was first put forward in his *Staatliche Theorie*

In order to be able to define the monetary unit, Knapp states, one has to ask: What does the State mean by the monetary unit? Since it is a creation of the State, the unit is what the State has meant it to be.<sup>15</sup>

The concept of *payment* is fundamental for Knapp.<sup>16</sup> The unit of value, he says, is nothing but the unit in which the amount of payments is expressed.<sup>17</sup> This is the same as saying that the unit of value is the unit of debts. The problem is how to get hold of the unit. It may be a quantity of a commodity, e. g., silver or gold; and it is often defined in such a way by the law. This was, e. g., the case in Germany at his time of writing; Knapp holds the definition of the *Mark* as  $\frac{1}{1395}$  pound of pure gold to be quite correct.<sup>18</sup> But a definition of this kind, he continues, cannot cover all cases. He points to the experience of Austria when the country had gone off the old metallic standard and had a paper currency. Here the unit of value could not be a quantity of metal. It was evidently *nominal*. The Austrian situation therefore constitutes an empirical proof of the possibility of a nominal unit of value, he says; if the metallists say that such a unit is unthinkable, one has only to point out that it does exist.<sup>19</sup>

*des Geldes* (1905, 4th ed. 1923), cited ST. Some papers on the subject are collected in his *Ausgewählte Werke* I (1925), cited AW. The article "Die rechtshistorischen Grundlagen des Geldwesens" is especially illuminating.

<sup>15</sup> AW 228.

<sup>18</sup> AW 230.

<sup>16</sup> ST 2; AW 234.

<sup>19</sup> AW 233.

<sup>17</sup> ST 6 f.

The problem for Knapp was to find a definition of the unit of value that could be *generally* applied. We demand a theory of money that covers all monetary systems, he proclaims.<sup>20</sup> Such a definition, he holds, can only be attained in a historical way.

In order to make his thought clear, Knapp starts from the assumption of an original stage where "autometallism" prevails.<sup>21</sup> With autometallism he understands that a certain commodity, e. g., iron, is generally used as the medium of exchange. The unit of value is then a quantity of iron, e. g., one pound of iron. The payment of debts expressed in pounds of iron is effectuated through the weighing of iron on each occasion.

A change occurs if the State declares that obligations expressed in pounds of iron are to be discharged by delivery of silver. A ratio between the two metals has then to be fixed; the State has to prescribe how much silver shall be required for the discharge of an obligation expressed in terms of iron, e. g., 1 ounce of silver for 1 pound of iron. The medium of payment, then, has still to be weighed when payment is to be made; we have not yet left the stage of autometallism. But the unit of value, called "pound iron", became "nominal" at the very moment when the State introduced the new rule about payment in silver.<sup>22</sup>

<sup>20</sup> AW 230.

<sup>21</sup> ST § 1.

<sup>22</sup> ST 11: "Im Augenblicke des Überganges von Erz zu Silber werden also die bestehenden Schulden vom Staat als Nominal-Schulden aufgefasst ..."

The State may, however, go one step further. Suppose that the pound of silver is the unit of value. The State may then declare that obligations expressed in pounds of silver are to be discharged through the delivery of chartalist media of payment, i. e., with objects of a certain appearance of which each is to represent a given amount of units of value, the value of the material from which they are made being irrelevant. The unit of value may still be called "pound silver", but it is no longer a pound of silver. It is a "nominal" unit, fixed by the State.

Nominalism means, in the language of Knapp, that the State is only intent on preserving the relative magnitudes of outstanding debts; a debt to the amount of 10 units of value shall always be  $\frac{1}{10}$  of a debt to the amount of 100 units, etc. But the State reserves for itself the freedom to change, from time to time as is found convenient, the medium by which debts are to be discharged.<sup>23</sup>

The silver example may further be used to illustrate Knapp's idea. Suppose a pound of silver was at one time the current medium of exchange in which debts were expressed. Silver had then to be weighed when the payment was to be made. At a given time the State declares that a debt of "1 pound silver" need no longer be honoured by delivery of 1 pound of silver; instead, it may be discharged by delivery of 5 pounds

<sup>23</sup> ST 15: "Die Nominalität der Schulden besteht nicht etwa darin, dass der Staat das Zahlungsmittel mehr oder weniger häufig ändert, sondern darin, dass er eine solche Änderung grundsätzlich für möglich erklärt, ob er nun davon Gebrauch macht oder nicht."

of copper. Later on the State says that a debt of "1 pound silver" may be discharged by the delivery of a round piece of metal with an escutcheon on one side and the image of the sovereign on the other; or that discharge shall be considered legally made by handing over a bit of paper of certain appearance with the words "one pound silver" on its face. The origin of the unit of value, in this case, is a pound of silver. But it has been severed from its origin by a State decree making it "nominal".

The State may not only change the medium of payment for debts expressed in terms of a certain unit of value. It may also change the name of the unit as it has often done. On such occasions it is only necessary to determine the relationship between the old and the new unit and to define the media of payment that are to represent the new unit. Each time a new unit is introduced this procedure must be repeated. The present units do not signify quantities of metal. But they are connected with the original metallic unit of value through an uninterrupted chain of recurrent definitions.

The German monetary system obtaining at the beginning of this century was established by a statute of 1871. Here it was laid down that 1 *Mark*, the new unit introduced by the enactment, was to represent  $\frac{1}{3}$  of the preceding unit, the *Thaler*. In its turn, the *Thaler* once had been defined with reference to an older unit which it superseded, and so on. There is, according to Knapp, an unbroken chain of definitions leading back to the premonetary stage where

uncoined metal circulated as medium of exchange according to weight. The theory is summarized by Knapp in these words:

The State creates the purely legal concept of a unit of value; it says: its name shall be *Mark*; and it defines the *Mark* with reference to the preceding unit of value: the *Mark* is  $\frac{1}{3}$  of a *Thaler* ... In this way a chain of definitions arises; its first link is connected with autometallism.

Our present units of value are not defined through a quantity of metal; this is the case only with the first link in the historical chain. Subsequent links are not technically, but only historically defined. This is the content of the State Theory of Money.<sup>24</sup>

It is characteristic for Knapp that the definition of the monetary unit is *ultimately* based on a quantity of metal. In this way the intellectual difficulty of conceiving the monetary unit as something without physical existence is apparently overcome; for through the historical junction with a precious metal the unit seems to be firmly anchored in the world of realities. A follower of Knapp expressly says that the monetary unit would remain abstract and unseizable if it had not once been attached to the value of a commodity.<sup>25</sup>

As was mentioned above, Knapp at the same time concurs with the metallists in defining the German

<sup>24</sup> AW 235 f.

<sup>25</sup> Singer, *Das Geld als Zeichen* (1920) 75: The unit of value can be defined as a quantity of metal as long as the metal is the medium of exchange; but its essence is altered when the media of payment have become chartalist; the historical definition is then the only one possible; but the link with the metal is necessary: otherwise the unit would be unseizable. ("Die Geltung /der Werteinheit/ würde in abstrakter Ungreifbarkeit verharren, wenn sie nicht einmal verankert gewesen wäre in dem Wert eines Gutes.")

*Mark* as  $1/1395$  pound of gold.<sup>26</sup> This might seem strange; but it was necessary from his own standpoint. For he takes the stand on the law; the unit of value being created by the law of the State, the answer to the question what the unit *is* can only be given by telling what the State means by it. The German law defined the *Mark* as  $1/1395$  pound of gold; the *Mark*, therefore, had to be defined as  $1/1395$  pound of gold.

The reason why later on this "technical" definition is discarded in favour of the historical one is only, as we have seen, that definitions of the technical kind are not suited to *all* monetary systems. In the German law Knapp found another definition, too: that of the *Mark* as  $1/3$  of a *Thaler*, and this is the kind of definition that he considers universally applicable.

Are the two definitions of the *Mark* contradictory? Of course not; they do not refer to the same concept.

Only the first definition ( $1 \text{ Mark} = 1/1395$  pound of gold) is really a definition of the *Mark*. It purports to say what the *Mark* is. The other definition ( $1 \text{ Mark} = 1/3 \text{ Thaler}$ ) is concerned with another question: How debts expressed in *Thalers* are to be paid in the new currency referring to the *Mark* as a unit. It is obvious that this provision about the liquidation of outstanding debts says nothing on the question of what the *Mark* is except that it states the *magnitude* of one *Mark* relative to one *Thaler*. The concept of the monetary unit is presupposed when the magnitudes of two units are compared. If I want

<sup>26</sup> AW 230: "You metallists are able to explain *our* monetary system; our present and our past system."



to get a description telling me what a horse is, I will not be much the wiser by being told that some horses are bigger than others; the horse-concept is being left unexplained.

If the historical definition were taken literally, it would lead to a patent absurdity. The *Mark* being  $\frac{1}{3}$  of the *Thaler* would mean that the *Mark* was qualitatively identical with the *Thaler* with the exception that its magnitude was only  $\frac{1}{3}$  of the *Thaler*. But the qualities of the *Thaler* would be given in a corresponding way until the stage of autometallism was reached. At this stage, the unit of value would be a quantity of silver. All subsequent units of value being qualitatively identical, except with regard to magnitude, this would imply that one *Mark* was to be defined as being a quantity of silver.

This is not, of course, Knapp's meaning. The "definition" solely refers to the legal question of how debts expressed in terms of *Thalers* are to be settled with the new *Mark* media of payment. Knapp gives a succinct statement of his theory in the following words:

In general there is no other definition of the unit of value than the historical one; it means: that so and so many units of value, represented (*dargestellt*) by the new medium of payment, are legally valid for discharge of an existing debt to the amount of *one* of the old units.

The definition of the new unit of value, therefore, consists in indicating how many new units of value are legally equivalent to one old unit of value.<sup>27</sup>

<sup>27</sup> ST 17.

It could hardly be more clearly said that the historical definition of the unit of value is no real definition. The great achievement of Knapp is his analysis of the physical media of payment. The nominalistic definition of the unit of value sought for is never attained. Knapp seems indeed to have realized that his theory fell short of the goal in this respect. He expressly says that he did not pretend to offer a complete explanation of the "unit of value" but only pursued the inquiry as far as he deemed necessary for his main purpose, which was the explanation of the media of payment.<sup>28</sup>

Knapp's concept of nominalism is neither clear nor consistent.

(i) At the stage of autometallism, the unit of value becomes "nominal" at the moment when the State prescribes that an obligation expressed in terms of iron is to be discharged by delivery of silver, e. g., one ounce of silver for one pound of iron. In doing so, Knapp says, the State treats the unit of value called "pound iron" as if it did not mean that iron was really to be delivered but were merely a name by the use of which the *relative* magnitude of debts is indicated. This is not very clear. If a promise to deliver one pound of iron previously meant what the words said in their ordinary sense and the debtor therefore had to deliver one pound of iron in order to free himself, the unit of value was not "nominal". The obligation was, in Knapp's own terminology, an obligation to deliver goods (*Realschuld*). This fact cannot be retroactively altered by the State. What is done by the legislation referred to is something else: a new rule for the discharge of such obligations is instituted

<sup>28</sup> ST 7. Cf. Elster, *Die Seele des Geldes* (1923) 71.

in that silver from now on has to be delivered instead of iron. As Knapp says himself (ST 12, 20) it is still a *Realschuld*, though curiously enough it cannot be fulfilled by delivery of the ware agreed upon by the parties. Neither before nor after the legislative change is the expression "one pound iron" merely a name for indicating the relative magnitude of debts; before the legislation it signified one pound of iron, after the legislation it came to function as an indicator of the amount of silver required in order to free the debtor. If people continued to make promises in terms of "pounds of iron", knowing that these promises had to be honoured by the delivery of silver, the words "one pound of iron" were really an expression for one ounce of silver. The obligation was still a *Realschuld*.

(ii) When Knapp says that the possibility of a "nominal" unit of value has been empirically proved through the Austrian monetary system, "nominality" means that the unit does not signify any substance at all, the media of payment being chartalist.

(iii) Nominality is also defined as meaning that the State reserves for itself the freedom to change arbitrarily the means by which obligations expressed in a certain unit are to be discharged (ST 15; cited in footnote 23). This is something else; it does not necessarily imply that the obligations in question are not to be honoured by the delivery of any substance.

The basic idea behind the various formulations offered by Knapp seems to be that the "unit of value" is merely a name used to express the magnitude of payments. The definition of the unit of value is therefore based on the concept of payment. But the media of payment in their turn are defined by means of the unit of value; for they are, according to Knapp, nothing but carriers of units of value (*Träger von*

*Werteinheiten*). Knapp was aware of this circularity. But he never got out of it.<sup>29</sup>

The German jurist Martin Wolff modified Knapp's theory in the following way.<sup>30</sup> Within every monetary system, he says, the unit is nothing but a name. (Probably Knapp would have concurred in this.) The meaning of the unit (its *Sinn*) appears only in relation to other similar units. Knapp is in error because he only paid attention to the relation to the preceding unit. This relation is one of temporary significance only; when all the old debts have been discharged the ratio between the old and the new unit loses its importance. Instead one has to take account of the relation to other contemporary units. The author apparently holds that the meaning of the monetary unit emerges from the rate of foreign exchange.

Similar criticism applies to this theory. The units between which a rate of exchange prevails must both be supposed to exist. The rate of exchange between them does not illuminate their nature in any way.

In the introductory paragraphs to his *Treatise on Money* (1930) Keynes makes a few remarks on the nature of money that are somewhat reminiscent of Knapp. After having pointed out the distinction between a money of account, which is the primary

<sup>29</sup> In ST 6 f. Knapp says: "The unit of value is for us nothing but the unit in which the magnitude of payments is expressed." Immediately before he has said that a medium of payment could be defined as a bearer of units of value. But then, he says, the idea of a unit of value would be treated as self-evident — which it is not.

<sup>30</sup> In V. Ehrenberg's *Handbuch des gesamten Handelsrechts* 4: 1 (1917) 571 f.

concept of a theory of money, and "money itself" (money of payment) the illustrious author goes on to say:

Perhaps we may elucidate the distinction between *money* and *money-of-account* by saying that the money-of-account is the *description* or *title* and the money is the *thing* which answers to the description. Now if the same thing always answered to the same description, the distinction would have no practical interest. But if the thing can change, whilst the description remains the same, then the distinction can be highly significant. The difference is like that between the King of England (whoever he may be) and King George. A contract to pay ten years hence a weight of gold equal to the weight of the King of England is not the same thing as a contract to pay a weight of gold equal to the weight of the individual, who is now King George. It is for the State to declare, when the time comes, who the King of England is.

Keynes has not taken up the historical definition. What recalls Knapp is the utterance that it is for the State to declare what the medium of payment is to be. (In the sequence Keynes says that all modern money is chartalist.) There is also a trace of metallism in what Keynes says.

The whole passage is remarkably vague, which seems to indicate that the author did not feel on firm ground. The definition of the money of account as the description, or title, and of money itself as being the thing which answers to the description is only tentatively put forward. It cannot be taken literally; one could not impute to Keynes the contention that "one pound" is a description of a one-pound note.

What he wants to say is only that the media of discharging debts expressed in the money of account are determined at each time by the State. This leaves the question as to the nature of the money of account open.

## b. The unit of value theory

The unit of value theory appears in two forms. Either the unit is held to be the expression of a subjective idea of a value; or it is said to represent an objectively given quantity of value. These two possibilities are, however, hardly kept clearly apart.

Prominent among the authors who hold the former view is Fr. Bendixen, a compatriot and contemporary of Knapp.<sup>31</sup> He regarded the State theory as containing the basic elements of the scientific theory of money. But Knapp, he contended, had confined himself to the legal view; the theory had to be supplemented by taking account of the economic aspect of money. From the legal point of view, Bendixen says, money is the means of discharging debts; from the economic point of view, however, money represents the right, grounded on performances (*Leistungen*), to obtain performances in return (*Gegenleistungen*).<sup>32</sup> In other words, what Bendixen wants to emphasize as

<sup>31</sup> Among Bendixen's many publications on the nature of money the principal ones are: *Das Wesen des Geldes* (1908); *Geld und Kapital* (1912); "Vom theoretischen Metallismus" in the *Jahrbücher für Nationalökonomie und Statistik* 112 (1919), cited JB; *Währungspolitik und Geldtheorie im Lichte des Weltkrieges* (1919), cited WuG.

<sup>32</sup> WuG 120 ff.; *Das Wesen des Geldes* 18.

the *economic* aspect of money is the purchasing power of money as contrasted to its *legal* function of medium of payment.

The unit cannot be a quantity of precious metal, Bendixen contends: it must be "a spiritual something" (*ein geistiges etwas*); something belonging to the realm of ideas, though no less real than the precious metal.<sup>33</sup> It is the expression of an idea of value current among the people. Bendixen writes:

The first task of a monetary theory which, by contemplation of the facts of history and the experiences of daily life, has freed itself from the belief that money in its essence is a precious metal, seems to me to be to conceive and describe the "unit of value" conceptually. In contradistinction to the physical State media of payment the unit of value belongs to the realm of ideas; it is the calculatory magnitude (*rechnerische Grösse*) in which everybody expresses the value of his possessions, his services, his fortune, and his income. This unit of value is an idea the content of which stems from the people, not from the State: though its name may be a creation of the State. Thus the *Mark* as  $\frac{1}{3}$  of a *Thaler* is the legal name for a sense of value (*Wertvorstellung*) that was present among the people. Other units of value have retained their names through centuries.<sup>34</sup>

The State, Bendixen holds, can "create" the unit only in the sense of giving a name to an existing notion of value. In doing this, the State is bound to define a new unit in terms of the preceding one, as when 1 *Mark* was defined as  $\frac{1}{3}$  of a *Thaler*. The

<sup>33</sup> JB 507.

<sup>34</sup> JB 506.

State cannot interrupt the chain of value notions (*Wertvorstellungen*) in the minds of the people.

The notion of value is identical with the "calculatory magnitude in which everybody expresses the value of his possessions, his services, his fortune, his income" referred to by Bendixen. It exists in the minds of the people prior to legislation concerning the monetary unit. The name of the monetary unit, imposed by the State, is only a name for the calculatory magnitude. Bendixen describes this "calculatory magnitude" as being *derived from all prices known to the individual*.<sup>35</sup>

Wagemann propounds the same idea in his work on the general theory of money.<sup>36</sup> He regards the historical definition as being insufficient since it only defines the actual unit by means of a previous one. From the point of view of economics the historical definition should be superseded by a psychological one. He goes on to say:

The unit of value may from the beginning have received its meaning through its relations to a metal; the jurist may still define it through its relation to an older unit: to the economist it has acquired a meaning that is much more comprehensive (*umfassend*). To him it is much more than a quantity of metal; it is also *much more than the unit in which debts are reckoned*. Above all, *the unit is also, to the economist, the unit of prices*. As such it is the upshot of innumerable relations of exchange, the sum total (*Inbegriff*) of thousands of price-experiences. In this sense it could be called a generic concept — as for instance the tree. Just as

<sup>35</sup> WuG 123.

<sup>36</sup> *Allgemeine Geldlehre* (1923) 72.



this calls forth the notion of the oak, the fir, etc., or rather includes them, without being itself a determinate picture of memory; so *the unit of value is to us the price of a thousand things*: a certain part of the price of food, of the income, of the rent, etc. (Author's italics.)

Let us first consider the distinction made by Wagemann between the monetary unit as the unit in which *debts* are reckoned and the monetary unit as the unit of *prices*. The jurist takes account of the first function only, he says, the economist also of the second one. But is there any real difference between the two functions?

The word *price*, as it is commonly used, is connected with the concept of sale and purchase. If an object has been sold, the price is the amount of monetary units that the buyer has to pay to the seller according to the contract. In an offer for sale the price is the sum of monetary units that a presumptive buyer is required to pay; and, *vice versa*, in an offer for purchase the price is the sum that the offerer declares himself willing to pay for the object. In other words, a price is the sum of monetary units that the buyer promises to pay in an actual or contemplated contract for sale and purchase: or, more briefly, price is the amount of the debt, or the obligation to pay a fixed sum of monetary units, assumed by a buyer.

There can be no doubt that Wagemann employs the word price in the usual sense. Consequently, the "unit of prices" of which he speaks is the same thing as the unit in which debts are expressed. The supposed

distinction between the unit of debts and the unit of prices is non-existent.

Bendixen makes a distinction that is similar to Wagemann's. In law, he says, money is the means of discharging debts; in economics, money is said to be the "right" to obtain a reward for services performed. But no distinction can be made between the means of discharging debts, i. e., the media of payment, and the means of obtaining "rewards" for one's own services. These "rewards" are obviously to be reaped by means of buying things or services and paying for them — by the media of payment.

In order to define the idea of the value for which the name of the monetary unit is said to be a name, the authors refer to people's price-experiences: the unit is held to be derived from the prices known to the individual. But this explanation is circular. If I know the prices of a number of commodities, I know that they have been offered, or sold, for such and such sums of money: wheat for  $x$  units a ton, coal for  $y$  units a ton, etc.; that is to say, the payment of so and so many monetary units has been offered, or made, for these various commodities. The offer to pay, or the promise to pay, certain sums of monetary units presupposes that the unit is given.

The theory that the monetary unit is the expression of a notion of value actually present in the mind of the people is also put forward by Nussbaum. After having pointed out that in the course of history the value of the monetary unit becomes more or less disconnected from its physical substratum he writes:

Nevertheless, in the consciousness of the social community, its significance (i. e., the significance of the monetary unit) is sufficiently distinctive. To take a modern example, between March 6, 1933, when the United States went off the gold standard, and January 31, 1934, when a new gold parity of the dollar was fixed by the President, there was still at any given moment a neat idea of what a "dollar" meant. The existence of a monetary unit is apparently a phenomenon of social psychology which can be traced historically for each unit, yet is impossible to decompose analytically into simple logical elements. The American dollar can be traced back, through many vicissitudes, to the Spanish "milled dollar" or peso, the value of which was adopted by Congress in 1792 as the basis of the American monetary system. Again, the Spanish peso may eventually be traced back to a weight unit. There exists an uninterrupted chain of value notions concomitant with the use of the peso-dollar terms. But the dollar concept existing at any given time is as little susceptible of definition as, say, the concept of "blue".

No more can be said than that "dollar" is the name for a value which, at any definite moment, is understood in the same sense throughout the community, and since goods and services are evaluated in terms of the dollar, that unit is a measure or a standard of value.<sup>37</sup>

The statement seems to express two different ideas: on the one hand that the dollar concept is undefinable, on the other hand that the "dollar" can be defined as the name for a notion of value that is current among the people. We will discuss the former alter-

<sup>37</sup> *Money in the Law* 14. Mann cites this definition with approval even though he seems not to be quite satisfied with it (*The Legal Aspect of Money* 45). He adds in a footnote that the problem is whether or not in law the meaning of the name of the monetary unit can be further elucidated by relating it to another concept.

native later on; here we are concerned with the notion of value theory only.

Can it really be said that there exists, throughout the community, a notion of a value for which the "dollar" is a name? The author must have in mind the notion of what can be bought for 1 dollar. But what does this notion really imply? People know that a limited number of objects can be bought for 1 dollar each; others for 10 dollars, or 100 dollars, etc. This knowledge is, of course, unevenly distributed among the population; some know more, others less. People have furthermore different objects in view when they reflect on what may be bought for 1 dollar, or 10 dollars, or 100 dollars. What is common knowledge is, indeed, that bargains are concluded in terms of dollars and that certain dollar prices on a number of commodities and services prevail. That is to say, people know that a certain monetary system based on the "dollar" exists in the United States and they have some ideas about how they may put it to their own use in acquiring goods and services. The common notion of a "value", for which the "dollar" was to be the expression, is nowhere to be found. No such notion exists.

The explanation is circular for the same reason as that of Bendixen and Wagemann. The question what the "dollar" is cannot be answered by pointing to the fact that people have some ideas about what they are able to acquire in exchange for promising to pay certain sums of "dollars".

As representatives of the objective theory K. Elster,

Irving Fisher, and L. M. Fraser may be cited. Elster discusses at some length "the enigmatic entity of a unit of value" (*Das Rätselwesen Werteinheit*) in his book on "The Soul of Money". He summarizes his conclusions in the following manner:

The notion (*Vorstellung*) that we call the unit of value is the notion of a quantity of goods that the possessor of media of payment is able to acquire.

Fisher comes close to this description in saying:

The grain means to us weight, the dollar does not. We never think of it in any such way. We think of it as a unit of value . . . What it buys is the vital question . . . The dollar is what the dollar buys.<sup>38</sup>

L. M. Fraser presents a long disquisition on the various meanings of the word money. Among them he points out the sense of purchasing power or value:

The word "shilling" applies primarily to a particular coin possessing purchasing power. But it is also liable to be used of the amount of that purchasing power itself. When I am told that a packet of cigarettes will cost me a shilling, I do not take that as meaning that I must necessarily hand over a shilling piece to the tobacconist; for I know perfectly well that he will accept two sixpenny pieces, or even twelve pennies, if it is more convenient to me to make the payments in either of these forms. His interest, and mine, is in purchasing power, not in coins . . .

When commodity values are expressed "in money terms" what is meant is simply that they are expressed quantitatively (or numerically) as containing so many units of purchasing power. "Money" in such contexts . . . stands not for

<sup>38</sup> K. Elster, *Die Seele des Geldes* (2. ed. 1923) 81; Irving Fisher, *The Money Illusion* (1928) 17.

*pieces* of money, nor even for exchange media as such, but for pure quantities of value.<sup>39</sup>

The statements of Elster and Fisher cannot be taken literally. These authors evidently do not mean to say that the monetary unit is identical with the innumerable commodities that can be bought for money; this would be an absurdity. What they want to express is doubtless the same idea as Fraser: that the unit signifies a "quantity of value" in the sense of a *certain amount of purchasing power*.

It might seem quite natural to speak of the monetary unit as signifying a quantity of purchasing power. But this theory runs into several difficulties.

In order to clarify the position it should first be noted that nothing can be bought for the monetary unit as such. The distinction between the unit itself and the media of payment must be kept in mind. If a purchase is made on a cash basis, the seller is induced to part with the object through the immediate receipt of media of payment to the amount of the price. When credit is extended to the buyer, the buyer acquires the object in return for placing himself in a certain position of constraint.

It is therefore inaccurate to speak of the purchasing power of the dollar, the pound, or the *Mark*. Purchasing power belongs to a person.<sup>40</sup> It depends on the ability to dispose of media of payment or to obtain credit. The monetary unit enters into the picture only as the unit in which prices are fixed. No purchas-

<sup>39</sup> *Economic Thought and Language* (1947, A. & C. Black) 142, 149.

<sup>40</sup> Cf. Murad, *Private Credit and Public Debt* (1954) 19.

ing power is connected with the unit as such; this common language is inexact. Purchasing power only accrues to a person possessing media of payment or enjoying credit.

The "purchasing power of the dollar" could only signify the amount of purchasing power derived from the possession of a given sum of dollar media of payment. Since prices always fluctuate to some degree, the unit would not, however, represent any fixed quantity of purchasing power; it would be continuously changing.

This changeability is admitted by Murad who nevertheless adheres to the unit of value theory. The standard unit of value, he says, is "a vague concept of an ever-changing magnitude of purchasing power".<sup>41</sup> This concept is difficult to comprehend. The "standard unit of value", i. e. the monetary unit, is to be a magnitude of purchasing power; but since it is always changing, it represents no definite magnitude at all.

If "1 dollar" did represent a quantity of purchasing power, 100,000 dollars would, at least, represent a quantity 100,000 times as great. But this is not the case. The purchasing power derived from the possession of media of payment to the amount of 100,000 dollars is not 100,000 times as great as that derived from the possession of a dollar piece. Few objects can be bought for 1 dollar: some cigarettes, a little food, etc. The owner of 100,000 dollars has a much wider choice; the owner of only 1 dollar cannot buy  $\frac{1}{100,000}$ .

<sup>41</sup> "The Nature of Money" 228.

of what the other man can buy. The owner of a greater sum will also be in a better bargaining position than the owner of a smaller sum and will therefore be able to force prices down and extract more favourable credit conditions.<sup>41a</sup>

It is not necessary, however, to dwell any longer on the many difficulties into which the unit of value theory runs. The definition of the monetary unit as a unit of value, in the sense of a unit of purchasing power, is necessarily based on the concept of sale and purchase. Purchasing power is the ability to make use of the monetary system to one's own advantage by making purchases in terms of its unit. But in a contract for sale and purchase the monetary unit is supposed to exist, since the buyer promises to transfer a sum of such units to the seller. The definition of the monetary unit as a unit of purchasing power is therefore circular.

### c. The monetary unit indefinable?

Thus we see that Lord Castlereagh's explanation, though still offered by many authors in one form or other, leads nowhere. The followers of Mr. Thomas Smith are no less numerous and distinguished. Hawtrey says for instance:

The pound sterling can only be defined as the English unit for the calculation of debts. A pound is a pound. It has preserved a continuity of existence from the Dark Ages, a

<sup>41a</sup> Cf. Appendix IV.



continuity hardly surpassed by any human institution except the days of the week.<sup>42</sup>

Cassel says that the monetary unit is an "abstract unit of account" which is not identical with a quantity of gold. Among the millions who are making daily use of this unit, he points out, very few are able to explain what a unit is.<sup>43</sup> But Cassel himself has hardly any answer to this question; for what is, indeed, an abstract unit of account? Cassel defines it only in a negative way. The unit is supposed to have its origin in a standard commodity; but in the course of time it gets an "independent existence detached in a sense from the standard commodity".<sup>44</sup>

It should be noted that the problem is not to define the concept of numbers; that is another question. We count numbers of monetary units just as we count numbers of apples and plums. But what is this whereof we count numbers under the name of dollars, pounds, etc., etc.? This is the problem. Cassel's answer means only avoiding the problem.

In one place Cassel says that the monetary unit is a word only; but he does not elaborate this idea further.<sup>45</sup> Cannan expresses himself to the same effect.<sup>46</sup> Others have said that it is only "a name".<sup>47</sup>

<sup>42</sup> *Currency and Credit* 421 (1950, Longmans, Green & Co).

<sup>43</sup> *Teoretisk socialekonomi* (1934, Swedish) 348; cf. *The Theory of Social Economy* (1923) 348.

<sup>44</sup> *The Theory of Social Economy* 348. The notion of an abstract unit of value is further discussed in Appendices III and IV.

<sup>45</sup> *Teoretisk socialekonomi* 348. (The passage is not found in the English edition.)

<sup>46</sup> *Modern Currency and the Regulation of its value* (1931) 2.

<sup>47</sup> Thus Martin Wolff, cited above p. 101. Mann, *The Legal Aspect*

Pigou writes in the following manner concerning the monetary unit:

A pound sterling is not a thing at all. It is a name handed down in history. It is open to the government to proclaim at any time that a coin constituted in such-and-such a way, or a paper note on which such-and-such a device is printed ... is *equivalent* to a pound sterling; so that debts falling due, that were contracted in terms of sterling, are legally acquitted by a transfer from debtor to creditor of the appropriate number of these things. If presently the government chooses to proclaim something else equivalent to a pound sterling, debts contracted in sterling, that fall due after this second proclamation, are then legally discharged by transfers of the appropriate number of units of this something else.<sup>48</sup>

The pound is, of course, a name handed down in history. But is it a name for something, and if so, for what? This question is left open. That a paper note on which such and such a device has been printed is the "equivalent" of a pound sterling means only that

*of Money* 43 ff. accepts Knapp's historical definition as a working principle applicable to most cases. But it does not assist in defining the pound, he says, since the history of the pound is a continuous one. Mann holds the idea of the "abstract pound, the ideal unit, the sense of value" to be more appropriate to modern conditions than any other explanation. Lawyers are thus driven to extra-legal explanations, he says, which, though correct and interesting in themselves, are not very helpful for legal purposes. "There remains nothing but to consider a unit of account, such as the pound sterling, simply as a name for something which cannot be precisely defined..." (References in a foot-note.) This idea is not, however, distinguished from the idea that the monetary unit is a name for a value; the author immediately cites Nussbaum's utterances in this respect with approval. Nussbaum's position seems, indeed, to be the same as Mann's.

<sup>48</sup> *The Veil of Money* (1949, Macmillan) 1 f.

this note is a legal medium for discharging a debt to the amount of one pound.

The position of Pigou is, in fact, the same as that of Hawtrey: A pound is a pound. No more can be said about it.

The unit is undoubtedly an essential element in the monetary system. But it escapes every effort to grasp it. An instance is the definition offered by W. Andrae in a recent book. He rightly points out that for thinking in terms of money a unit of account like the *Mark*, the *Schilling*, the pound, or the dollar is needed. "Every such unit of account is the expression of the economy of the nation (*Volkswirtschaft*) as a community of payments."<sup>49</sup> This is not very enlightening; it only means pointing to the fact that the unit in question is the unit in which debts are fixed and payments made.

Additional examples may be adduced to illustrate the situation in modern literature on money. Edward S. Shaw distinguishes between money of account and "money", the latter expression denoting media of payment.<sup>50</sup> Concerning the money of account, i. e., the ideal unit, the author says in the introduction:

The money-of-account is the germ cell of any monetary system. It is a mode of expression, an abstraction with no physical substance, a ghost money. Prices are quoted in terms of it. When prices are agreed to by buyers and sellers and are written into contracts, debts arise that are measured in the money-of-account. Prices can be quoted and debts incurred in terms of this accounting unit even though it has

<sup>49</sup> *Geld und Geldschöpfung* (1953) 62.

<sup>50</sup> *Money, Income, and Monetary Policy* (1950, Richard D. Irwin).

no physical counterpart in money proper. The money-of-account is handy even in a moneyless or barter economy.

Nothing of what is said here is, perhaps, incorrect. But everything is remarkably vague. What does it mean that the unit is "a mode of expression", "an abstraction", "a ghost money"? What is ghost money in contradistinction to real money? These expressions give hardly any insight into the nature of the unit — though the unit is the very "germ cell of every monetary system".

Coulborn expresses himself to the effect that one has to distinguish between the abstract unit of account, "the mathematical apparatus used to express price", on the one hand, and "money" as medium of payment on the other.<sup>51</sup> Thereafter he writes:

To begin with let us consider briefly the abstract side of money. We said that money in this sense was a mathematical apparatus, which may seem to make the matter more difficult than it need be, especially if the word money conjures up in our minds only the simple, concrete pounds, shillings and pence of everyday transactions. But let us ask instead what an inch is. Can an inch be picked up and handled? An inch is a distance, a creation of the mind, an idea; it can be thought of, or represented by strokes and numbers on a ruler, but itself it is intangible, invisible and unsubstantial. So is the abstract side of money, the unit which we call a pound sterling, or any other unit of account. We reckon in pounds, use them to compute the value of miscellaneous things; we juggle mathematically with them, multiplying prices, dividing values, adding costs and subtracting expenses. The unit of account is the vehicle of our thoughts

<sup>51</sup> *A Discussion of Money* (1950, Longmans, Green & Co) 2.

of value, price and worth. Without it we should remain pedestrian in the economic section of the mind.

What is said here about the monetary unit is only something negative: that it is intangible, invisible, and unsubstantial. The unit is, briefly, unseizeable.<sup>52</sup> In substance this is the same as is said by Cassel, Hawtrey, and the other authors cited above. In the sequence Coulborn makes an attempt to explain the unit. He writes:

Perhaps the abstract side of money may be understood more readily by thinking of the guinea. There are considerable fields of enterprise, within and without the terrain of retail trade, where custom still requires pricing in guineas. No guineas circulate. They ceased to do so during the Napoleonic Wars, over a century and a half ago; and afterwards only sovereigns of 20s. and no guineas were issued. Yet even apart from specimens surviving in the collections of numismatists, guineas are still realities in our economic life; but they are realities only as units: the abstract side has survived the concrete coin.

What is a guinea? It is only an expression for a sum of 21 shillings. But the fact that a certain expression is used for denoting a number of monetary units can in no way contribute to an explanation of the unit itself. One could have particular names for sums of 100 or 1,000 shillings; these names, of course, would convey no information on the nature of the unit of which they were to indicate numbers.

<sup>52</sup> The comparison between the monetary unit and a unit of length is discussed in Appendix V.

### 3. *Nothingness of the monetary unit*

The path has led to a point where it seems to end up in a blank wall. The identification of the unit with a quantity of metal had to be discarded; it was not correct even with reference to the unit under the classical gold standard. To define the unit as an expression for the value of a quantity of gold was mistaken, as we have seen, for it is in fact the price of gold in monetary units that is regulated. The next step was to identify the unit with its supposed purchasing power. But this explanation proved to be circular; for in every act of sale and purchase the unit is supposed to exist, and the promise to pay a number of units is the means used by the buyer to acquire property. The ultimate position attained by monetary theory is to say: a pound is a pound; it is a name without anything being indicated as named by it; it is merely a word.

This is, indeed, an unavoidable conclusion. Every possibility of finding anything denoted by the words dollar, pound, etc., as they are commonly used, seems to be excluded. When we speak of such units, we have before us the word itself — visually or auditively. Furthermore, we have the idea that the word denotes something, though we are unable to say what. This idea, however, makes it psychologically possible to count numbers of monetary units. But in reality, the something is nothing. There is only the word itself in conjunction with the idea that it denotes something.

This is the final secret of the monetary unit — the secret of the mysterious quality that has made the nature of money an enigma for hundreds of years. The search for this quality has indeed been a search in a dark room for a black cat who is not there. It has been the main spring of the imposing volume of monetary metaphysics.

To assert the nothingness of the monetary unit is not really to say anything fundamentally new: it is only to express in clear language the conclusion to which a number of eminent authors of our times have arrived. But these authors have apparently been held back by the absurdities to which the conclusion seems to lead.

A pound is a pound. Nevertheless, numbers of pounds are counted. To count numbers of nothing seems, however, to be a mere play of words; and how could such counting have any serious implications? Furthermore, when one promises to pay the sum of 1,000 dollars or pounds, is this, too, a play of words? Is the promise void? Does it really contain nothing? This seems to be an absurdity. The use of the unit as a "measure of value" seems to be equally absurd; for how could values be measured by means of purely imaginary units?

The authors who have come to the conclusion that the unit is merely a word have not consciously raised these questions. Instinctively they have shrunk back before landing in such absurdities. But precisely for this reason the explanation remains defective and unsatisfactory, giving the impression of coming to

a standstill before something inexplicable. A few questions will, however, lead further.

Let us take it to be a fact that counting numbers of monetary units, making promises to pay sums of such units, etc., is really a kind of game of words. If so, this particular game of words is obviously incorporated in the social organization. Therefore, it has important practical consequences when performed under certain circumstances according to rules of law and custom. These consequences are constantly in our mind, besides the word for the unit itself, when we operate with numbers of the unit.

The practical consequences are what captures the interest; for they are the reason for the deadly earnestness of the play. Therefore, it is natural that the nothingness of the unit easily escapes notice. We consider the consequences without paying attention to the tool used for attaining them. But in order to reach an explanation of the monetary system that is free from contradictions and distortion of facts, the tool has to be studied and described.

The questions to be raised for this purpose are principally the following two: (i) If the monetary unit signifies no object at all, what is, then, the sense of a promise to pay a sum of money, and what means payment? In other words, how can the monetary unit function as a standard of payment? (ii) What is the sense of "measuring values" in monetary units?



## VI

### THE MONETARY UNIT AS A STANDARD OF PAYMENT

If the money of account, wherein debts are expressed, is really something else than the money of payment with which these same debts are payed, a curious lack of congruity between the debt and the means of discharging it seems to exist. The debtor's obligation will never be fulfilled in the exact sense of the word; for he does not deliver to the creditor that which is owed to him, but something else. The content of the obligation and the means of discharging it do not coincide. How can this be?

Moreover, as just pointed out, if the monetary unit is nothing at all, if there is only a word without anything being denoted by it, a promise to pay a sum of money might seem to be empty: apparently, it would be a promise to confer nothing at all on the other party.

An analysis of the promise to pay a sum of money and of the act of payment is needed in order to clarify the matter and do away with these apparent absurdities.

## 1. *The meaning of a promise to pay*

In chapter II we have discussed *the legal consequences* of promises to deliver goods and to pay money respectively. Our task is now to analyse *the promise itself*. These two things must be kept apart.

The legal consequences of a promise are the sanctions prescribed in case of non-fulfilment. These are determined by the law, not by the promise itself; it is the law that says under what conditions the promisor shall be ordered to do something by a court and how such an order is to be executed if not complied with. The legal rules refer to promises of various kinds: promises to pay money, to deliver goods, etc. To ascertain the meaning of these promises is obviously something else than ascertaining the content of the rules prescribing sanctions.

There is a great difference between a promise to deliver goods and a promise to pay money. When goods are sold, the promise of the seller is always determined in a qualitative and quantitative way: he is to deliver so and so much of these particular goods. But the promise to pay a sum of money contains no description of any physical object at all. If a person promises to deliver so and so many dollar pieces, he is not making a promise to pay "money" but to deliver a specified amount of coin. A promise to pay money is a promise to pay a sum of monetary units. But if this is so, it really seems to be a promise to deliver non-existing entities.

In order to avoid this absurdity it might be sug-

gested that the promise to pay money ought to be interpreted in the following way. It is true that a promise to pay 1,000 dollars does not mean a promise to deliver a note for one thousand dollars or ten notes for one hundred dollars, or any other particular combination of notes or coins. But it means: I promise to deliver legal media of payment, i. e., any combination of notes and/or coins, to the amount of 1,000 dollars. The peculiarity of the promise to pay money would, then, only be that the promissor would have a choice between different ways of discharging his obligation.

Such an explanation would, however, encounter certain obstacles. The promissor need not have any idea of delivering legal media of payment; he may have in his mind to pay with book money. He is certainly not guilty of any breach of promise if he does so; as we have seen, payment by book money is held to be valid payment, at least if not objected to.

Above all it must be kept in mind that the promise is actually expressed as a promise to pay *a sum of ideal units*. Coins and notes presuppose the ideal unit; certainly they cannot be identified with the unit. Hence it cannot be correct to interpret the promise to pay a sum of money as a promise to deliver coins or notes. This explanation includes an erroneous identification of the ideal unit with the physical things that constitute coins and notes.

Thus a promise to pay 1,000 dollars cannot be defined as a promise to deliver legal media of payment.

Instead it might, perhaps, be interpreted in the following way.

A promise to pay 1,000 dollars means, it might be said: I promise to take such measures, when the debt falls due, as are required in law for the discharge of a debt amounting to 1,000 dollars. This means that a promise to pay 1,000 dollars would be a promise to do what is required for the discharge of a debt arising out of a promise to pay 1,000 dollars. But that would be a circular reasoning. A promise cannot be described as a promise to do what is needed for honouring this particular promise. That would not convey any sense; it would not be indicated *what* the promissor would have to do.

The circular explanation lies near at hand for certain psychological reasons. It is derived from a confusion of the content of a promise and the legal consequences attached to a promise.

In making the promise the promissor puts himself in a position of constraint, since the promise answers to the description in the law of a condition for applying a sanction against him in case of non-fulfilment. Everybody is more or less aware of this. If the promissor is of sound mind and normally cognizant of how business is conducted, he will be familiar with the nature of the position of constraint and he will know what is required for releasing himself from it. But this does not imply that the promise is a description of the situation of constraint or of the media of bringing it to an end. The promise says: I shall pay 1,000 dollars to X on a certain day, or:

I assume the obligation of paying 1,000 dollars to X on that day. The description of the situation of constraint runs: When a person has made a promise to pay 1,000 dollars to X, he will have to make payment in one of the ways open to him; or else X can apply to a court for a judgment against him. The legal rules determining the situation of constraint refer to the fact that a promise to pay such and such a sum of monetary units has been made. The promise, as a condition of the situation of constraint, must be defined independently of this situation; first comes the promise, then the situation of constraint.

The attempt has been made to explain the lending of money as implying the lending of a certain amount of purchasing power. Fraser reasons in this way. What actually happens, he says, when I lend some "money" to a friend is that I hand over a certain number of coins or notes, or transfer a claim on a bank. But all I expect to get back from him is an equivalent amount of "money" meaning an amount which carries the same purchasing power. "It is not so much money which changes hands as purchasing power in the form of money." The word "money" in this connection really means "purchasing power", Fraser contends.<sup>1</sup> This theory implies that a promise to pay a sum of money is a promise to transfer a certain amount of purchasing power to the other party.

The purchasing power derived from the possession of media of payment to the amount of the loan will,

<sup>1</sup> *Economic Thought and Language* 140 f.

however, never be the same on the date of payment as when the loan was made. The general price-level will be different, and the volume of goods and services offered for sale will be composed in another way. The promise is only a promise to transfer a certain amount of monetary units to the creditor. Whatever amount of purchasing power will be derived from the possession of media of payment to this amount on the date of payment depends on a series of circumstances for which the debtor assumes no responsibility.

It seems impossible to avoid the conclusion that a promise to pay money is really a promise to transfer monetary units to the other party; but, since the monetary units are non-existent, the promise seems to be one that can never be fulfilled.

This is apparently a paradox. But the paradox is dissolved if it is taken into account that the promise to pay money, in spite of its being a promise to transfer non-existent entities to another person, can fulfil a function in the organisation of society. This is possible under the conditions that:

(i) a promise to pay money gives rise to a situation of constraint;

(ii) there are means available to the promisor for releasing himself from the situation of constraint.

Since these conditions actually exist in our society, no paradox remains. It should only be pointed out once again that the sanction on default need not consist in measures purporting to convey to the creditor exactly that which is due to him. This would be impossible in the case of monetary obligations (and at

least impracticable in most other cases). The important thing is that the promissor is under such a pressure to honour his promise that it seems better to him to do so than to commit a breach of promise. This result is generally attained whether the sanction be imprisonment for debt or seizure of goods.

## 2. *The act of payment*

When payment is made in cash, what happens is, objectively speaking, that coins or notes, the denominations of which when taken together amount to the sum of the debt, are tendered and received in payment. The debt is then considered to have been discharged, and the rules about sanctions against the debtor are no longer applicable; he is therefore released from the situation of constraint in which he found himself.

So much for what actually occurs in an outward sense. But if it is correct to describe a debt as an obligation to transfer a sum of monetary units, the situation seems to be a curious one. The obligation is then of such a kind that it can *never be fulfilled in the exact sense of the word*. When nevertheless the debtor is released from the situation of constraint through what is called an act of payment, this must include that he is released by means of something else than fulfilment of the obligation. How is this possible?

The act of payment cannot, indeed, be sufficiently explained by reference to the outward happening

only. We must also look into our minds and take note of the *ideas* accompanying it.

As we have seen, a loan of "money" is not a loan of certain coins or notes; it is conceived as a loan of a sum of ideal units. To borrow 1,000 dollars is not to borrow a note for 1,000 dollars, ten notes for 100 dollars, or any other combination of notes and/or coins. A sum of ideal units is held to be moved from the sphere of the lender to that of the borrower. When the loan is paid back, the sum is held to be moved in the other direction. This cannot really be effectuated by means of handing over coins or notes since these are not identical with any sums of monetary units though their inscriptions refer to sums of such units. When their transference is nevertheless considered to occasion the transference of the corresponding sum of ideal units, this can only be explained by their being, in our minds, *symbols* or *representatives* of so many ideal units as are indicated by the inscription on their face.

This is the crux of the matter. Monetary transactions become understandable only if the outward acts are seen in conjunction with certain ideas related to them. We are naturally inclined to think that the act which releases the debtor must include fulfilment of the obligation. Fulfilment in the literal sense is, however, impossible in this case, since monetary units cannot really be transferred from one person to another. But we can *talk* of this being done; and that we do.

According to current language the transfer of



monetary units is actually performed by means of the delivery of coins or notes. This is the expression of an idea that is not grounded on facts. But it has the important function of linking, in our minds, the payment with the debt and making it appear as a true act of fulfilment.

The promise to pay money does not therefore stand out as a senseless promise to do the impossible. It is subunderstood that means are available to the debtor to realize the transfer of monetary units. The mediating idea is, in the case of cash payment, the idea of symbols or representatives being the means of effectuating the transfer.<sup>2</sup>

This is the reason why the impossibility of exact fulfilment, in a literal sense, of a monetary obligation does not present itself to our mind. The idea of effectuating the transfer by means of symbols is so familiar to us that we do not give it a second thought.

In the case of book-payments the idea of such symbols is not interpolated. We use instead the idea that one "has" a sum of money in a bank when one's account is credited with a certain amount. What one is held to "have" in the bank is a sum of monetary units. When a book-payment is made, a sum of such units is held to be immediately transferred from the payor to the payee without the use of symbols.

By agreement between the parties, anything might be used as a medium of payment; the creditor may,

<sup>2</sup> This idea is often expressed in the literature on money as representing a fact. Coins and notes are said to be symbols or embodiments of the unit. See, e. g., T. E. Gregory art. "Money" in the *Encyclopaedia of the Social Sciences* p. 601 f.

e. g., accept a used car in payment of the debt. In this case the idea seems to be that the parties consent to let the object represent so and so many monetary units. If the transaction takes the form that the object is given *instead of* payment, the idea of representation is not used. In this case the creditor is not held to receive the sum due to him but something else.

The necessity of taking account of the ideas associated with the act is not peculiar to the act of payment. The situation is the same for legal acts in general. Such an act can never be described as an outward occurrence only; it is always connected with certain ideas and cannot be understood without their being taken into consideration. The peculiarity of the monetary acts is only that they refer to the imaginary monetary units.

### 3. *Money of account and money of payment in the debt relation*

At the end of ch. IV it was pointed out that the definition of "money" as medium of payment is not really tautological. The word money is used in two senses: as connoting ideal units and as connoting money of payment. The usual definition of money refers to the money of payment, i. e., to the media of payment; these are defined by means of the conception of an ideal unit. Such a definition is not circular.

Many authors have rightly maintained that the conception of the ideal unit is the primary one.<sup>3</sup> But

<sup>3</sup> Above 68 ff.

an element of something incomprehensible remains as long as the nature of the so-called ideal unit is not explained.

The situation is well illustrated by Hawtrey's discussion of the relation between the concept of a debt and that of the monetary unit. Hawtrey says that the idea of money is derived from the idea of debt, since money is that with which a debt may be legally discharged.<sup>4</sup> But the author is aware of the apparent circularity in the definition of money:

If the idea of money is derived from the idea of a debt, is it not equally true that the idea of a debt is derived from the idea of money? Can a debt have any other meaning than an obligation to pay money? To separate the debt from the money with which it is payable seems as transcendental an operation as to separate the grin from the Cheshire cat.<sup>5</sup>

Nevertheless, the author asserts, the distinction must be made. By means of one or two historical examples he wants to show that debts can exist even if there is no money in the sense of legal media of payment.

One example is drawn from the situation in England during the period 1797—1821 when the Bank of England was released from its duty to redeem its notes in gold and gold in consequence disappeared from circulation. Notes (of the Bank of England as well as of other banks) circulated during the period as media of payment, though they were not made legal media of payment. No legal medium of payment existed. A

<sup>4</sup> *The Gold Standard in Theory and Practice* 2 f. (1947, Longmans, Green & Co).

<sup>5</sup> *Ibid.* 15.

note was a documentary evidence of a debt due from the bank. Payment by tendering a note was therefore payment by means of the transference of a monetary claim. The system was comparable to a system of payment by cheques. "Under this system the means of paying any debt was another debt; the debts possessed an existence independent of money", the author says.<sup>6</sup>

Another example refers to the American crises of the years 1857, 1873, 1893, and 1907. The banks ceased to pay their customers in cash. But the customers could draw cheques against their accounts as usual and these were accepted in payment.

The conclusion drawn by the author from these examples is the following:

We have seen that bank credit *can* exist without money. That does not mean that this is a desirable state of things, but it enables us to understand the proposition that the idea of money is dependent on that of a debt, while that of a debt is not dependent on that of money. A debt, it is true, is reckoned, like money, in pounds, shillings and pence. But that is because money, being essentially that with which debts can be legally discharged, must be reckoned in the same units as debts. These familiar units form what is called our "money of account". . . . An enactment making a coin or note money has no meaning unless the units in which it values the coin or note are already known. The money of account must exist before the money.<sup>7</sup>

The author is certainly right in maintaining that debts are expressed in monetary units, that the legal media of payment refer to existing units, and that

<sup>6</sup> Ibid. 5.

<sup>7</sup> Ibid. 7.

the concept of the unit is therefore the primary one. It is respectfully submitted, however, that the reasoning suffers from two defects:

(i) The nature of the money of account, which is said to "exist" before the money (money of payment), is never explained. The unit does not exist. What exists is (a) the habit of using words like "pounds" in formulas like this: I promise to pay 1,000 pounds, and (b) the consequences attached to such a promise, i. e., the situation of constraint.

(ii) Such habits could neither grow, nor persist, unless there were available effective means of releasing oneself from the situation of constraint created by a promise to pay money; or else the promisor would put himself in a hopeless position. But the means of discharging debts need not necessarily be such as have been declared legal media of payment by legislation. Other devices, e. g., cheques, may, by force of custom and general opinion, have the same function. This was evidently the case during the crisis in the U. S. A.

As regards the position in England 1797—1821 Hawtrey says that convention took the place of law.<sup>8</sup> This was true to a certain extent. But convention, or custom, and law are closely correlated and both are needed for maintaining the debt system. What took place in England was a shift in the relative importance of law and custom, the importance of law being diminished while that of custom was increased. The custom of accepting bank notes in payment was, indeed, supported by the law. As early as 1797 it was

<sup>8</sup> Ibid. 8.

enacted that a debtor who tendered bank-notes in payment could not be imprisoned; and in 1812, following Lord King's refusal to accept bank-notes from his tenants, it was enacted that bank-notes could be tendered to a sheriff charged with enforcing the order of a court for payment of money.<sup>9</sup>

What is shown by the examples above is only that a debt system can exist without physical media of payment and without express legislation concerning legal media of payment. They do not show that a debt system can exist independently of means of making effective payment. Both elements, the idea of a monetary unit, in which debts are fixed, and symbols or other devices for transferring the imaginary units, are required for a monetary system.

<sup>9</sup> Cf. Nussbaum, *Money in the Law* 47 f.; Cannan, *The Paper Pound 1797—1821. A Reprint of the Bullion Report* (1919) XVII, XXVI.

## VII

### IMPLICATIONS

The preceding exposition may be summarized thus. The monetary unit is a word that is employed as if it signified an object. Numbers of this object are counted. But no real object, denoted by the word as it is actually used, can be found. There is only the word dollar, pound, etc., itself, though connected with the idea that it denotes an object; the object remains undetermined; it is only a something without any properties besides that of being denoted by a certain word. For practical purposes, however, the word is used in certain ways according to law and custom; it then entails important consequences. The non-existence of the supposed object generally escapes notice because interest is focused on the legal, moral, and social consequences of employing the word in conformity with established usage.

We have studied the legal consequences of using the word in formulas expressing promises to "pay money". Such promises serve to put the promissor in a situation of constraint because the legal machinery acts with a high degree of regularity and precision against the promissor if the other party applies for

a sanction and is able to prove that the promise has really been made. The constraint is further strengthened by "social sanctions" for a breach of promise (loss of credit, disrepute, exclusion from business circles, etc.). The promise can never be fulfilled in a literal sense since it purports the transference of imaginary units to the creditor. But the situation of constraint incurred by the promissor is a reality; and he can obtain release from the constraint by performing certain acts that are held to imply the transference of monetary units. The same is true, of course, with respect to the situations of constraint created by judicial and administrative decrees.

Since both promises and decrees, as well as acts of payment, defer to imaginary units, there seems to be something strange with the monetary system. It appears as a gigantic game — though played for serious purposes. Indeed, certain similarities exist.<sup>1</sup>

In both cases stereotyped acts are performed with reference to a set of rules and become meaningful to us because the rules attach certain consequences to them. Seen in isolation and without reference to any rules, a move by the queen on a chessboard is to us no more than the alteration of the position in space of a pebble. But in the light of the familiar rules of chess, and as a part of a game played according to them, the move is seen in another light. It is conditioned by the previous situation on the board, and it

<sup>1</sup> The comparison has sometimes been made. See, e. g., Timasheff, *An Introduction to the Sociology of Law* (1939) 155.



creates a new situation entailing certain consequences for the future moves.

In a similar way the pronouncement of the formula "I promise to pay 1,000 dollars" would seem to be meaningless if it were an isolated act, performed without reference to any rules; it becomes significant to us only because of its relation to certain rules of law and custom, and as a link in a series of similar acts. The parties presuppose the existence of the monetary system and its rules. They take a certain debt structure created by innumerable preceding acts to exist; the promise introduces a new element in the structure in that it creates a situation of constraint for the promisor; this, in turn, will lead to further moves in the game, and so on.

The relationship between acts and rules is of a similar kind over the whole field of law. The reason why there seems to be something paradoxical in the monetary system is that business is carried on by making promises to transfer sums of units that exist in the imagination of the parties only and by imaginary transfers of such sums. But it is precisely the nothingness of the monetary unit that is the chief source of the wonderful usefulness of the monetary system.

In his work *A Study of Moneyflows in the United States* (1952) Morris A. Copeland justly criticizes the "hydraulic analogy" in describing the money circuit, i. e., the likening of the money system to a system of reservoirs and connecting pipes and canals (29 f., 240 ff). This misleading analogy is very natural since our language was formed at a time

when "money" consisted of coins and therefore implies that money is something physically existing. It requires a special effort of the mind to realize that we have now — instead of physical objects changing hands — a system of debts, these being expressed in terms of a purely fictitious unit. The physical objects used in money transactions are only a means of turning over the imaginary entities.

### 1. *The interchangeability of money claims*

Promises to pay money are, far and away, the most common among promises of legal significance. It is singularly easy to adapt them for different purposes of various kinds. This is a consequence of their subject being imaginary units.

In making contracts for sales of goods the clauses concerning time and place of delivery are necessarily governed by considerations as to how the goods are to be procured, transported, stored, and used. For this reason the choice of the parties is, practically speaking, limited to a few alternatives. Most contracts are for delivery within a brief time; long contracts are unusual, except in the case of a few raw materials, since tastes and needs change and the possibility of procuring certain goods in the more distant future cannot easily be foreseen by the seller.

The situation is wholly different with regard to promises to pay money. Since the subject of such promises is imaginary units, no costs of transportation and storage have to be taken into account; payment can be made practically without extra expense at

every place with banking facilities; and "storage" in a bank brings interest. The question of quality does not exist, except in the form that the buying power of money is subject to variations. Money can always be used for a great many purposes; and it can always be procured in the market (as long as there are no exceptional credit restrictions). A great variety of clauses as to the date of payment is therefore made possible; long debts are a common occurrence.

Thus the nothingness of the monetary unit is the cause of the extreme *variability* and *adaptability* of promises to pay money. Further variations in money claims are introduced through devices invented in order to make such claims easy to prove and to transfer. A claim founded on a verbal agreement is not the same thing as a claim originating from the same transaction but founded on a written document; for the written document is a significant element in the claim-debt situation which makes the constraint on the debtor much more effective. Strictly speaking, therefore, one claim is exchanged for another if the parties to a verbal agreement for sale of goods put it into writing; a further exchange takes place if a bill of exchange is drawn by the seller on the buyer and accepted by him. A deposit on checking account with a bank differs from a savings deposit, not only because conditions as to interest and time of maturity are different, but also because the means of transferring the claims are different. The gamut of claims stretches from long-term bonds, and even bonds that never fall due, on the one hand, through short-term

bonds and bank deposits of different kinds to claims arising out of verbal contracts between private individuals.

The great diversity of money claims is a condition for the enormous interchange of such claims that is going on. There would be no reason for exchanging one claim for another with the same subject ("money") unless the claims were different with regard to time of maturity, interest, liquidity, economic position of the debtor, etc. But precisely because money claims are so easily arranged in many various ways suited to every conceivable purpose, there are motives for exchange at work. The credit system consists of layers of differently structured money claims between which a constant interchange takes place. The sale of a money claim means in practice that one claim is exchanged for another; a bill of exchange, e. g., is sold by the holder to a bank that pays him by crediting his account with a sum equal to the price. The banks are dealers in claims, offering their customers a variety of possibilities of exchanging one claim for another, and of acquiring claims of perfect liquidity in return for putting oneself in a position of constraint.

The credit system needs a more convenient form for releasing debtors than actual payment. This is the set-off, especially in the shape of the clearing between banks. The constraint ceases to be effective when it is reciprocal; debts are simply cancelled when the parties are mutually creditor and debtor.

The facilities for setting off debts against each

other on a vast scale are conditioned by the structure of debts. Very seldom are two claims for delivery of identical goods opposed to each other and set off; if such a thing occurs, it is almost to be compared to a road accident; both sellers will have to find another buyer for their goods. In the case of debts, however, where nothing material has to be delivered, the set-off fits in admirably, since it brings to pass the one thing needed: the release from the constraint.

Every bank accumulates claims on other banks through honouring cheques drawn on them, and in other ways. Streams of claims are thus canalized through the banks and meet in the clearing agency, where they vanish. This accumulation and cancellation of debts is an essential element in the modern monetary system. It is made possible by the fictitious character of the subject of debts.

## 2. *The endlessness of the interchange of claims*

The interchange of claims is *endless*. This is one of the seemingly paradoxical features of the monetary system. The bulk of debts are never "finally" paid; instead, one debt is exchanged for another, and so on to eternity. The paradox is, however, dissolved when it is realized that the essential thing with the debt situation is the constraint on the debtor and not the content of the debt. As we have seen, the content of the debt is fictitious. The debtor is apparently bound to deliver a quantity of non-existing entities; "final"

payment would mean actual delivery of these entities, and therewith the matter would be brought to a close. But actual delivery of monetary units can never take place. What the debtor can do is to release himself from the situation of constraint either by transferring symbols of the unit or by transferring a money claim to the creditor, thus putting another debtor in his place.

There is nothing paradoxical at all in the continued existence of a system of situations of constraint. The reason is that every such situation of constraint implies a motive for the debtor to do what is necessary to obtain the means of releasing himself from it.

This is how the system works. Credit is obtained by putting oneself in a position of constraint. The debtor then has to exert himself in order to avoid the sanctions that can be used against him. But the goods, services, or media of payment acquired in return for the debtor's promise to pay may be used for procuring an excess of media of payment over those required for releasing the debtor from the situation of constraint. A new promise creates a new situation of constraint; by means of exertion the excess of payment is realized again, and so on. Thus the wheels of business revolve, endlessly.

The endlessness of the interchange of debts is the very life-blood of the system. It would be sterile and useless if it were static. There must be movement within the system. Since the debts always fall due, sooner or later, the motives for the debtors to exert themselves in order to meet their obligations is always

at work; and this is the essential thing. To stop the creation of debts and the liquidation of old debts by new ones would mean the end of business.

### 3. *The creation of money*

The nothingness of the monetary unit is what makes possible the so-called creation of money. The expression springs from the idea that sums of monetary units are created. Such sums can be "created" out of nothing because such "creation" consists in a certain verbiage only, though a verbiage with most important consequences.

Creation of money does *not* consist in the printing of notes. The notes will remain in the vaults of the bank until they are needed for the payment of a debt owed by the bank. First, therefore, the bank has to assume a debt — in practice by crediting a customer's account with a certain sum; then the notes will be used in discharging the debt in so far as notes are demanded by the creditor. But the customer's claim against the bank is in itself book money, if it is a cash deposit.

"Creation of money" is, therefore, creation of book money; it means simply that a bank incurs a debt through a promise to pay a sum of money. Now the promise of a bank does not, as such, differ from a promise of any corporation or individual. Money is "created" by every promise to pay — in the sense that a money claim against the promissor is established (which means that the primary condition for a sanc-

tion against him is set by his promise). But only certain money claims, namely cash deposits with banks, have such a high grade of liquidity as is required to make them suitable as general media of payment. Other claims possess only lower grades of liquidity or "moneyness". That is what makes the difference. Only the establishment of debts by banks in the form of crediting customers' checking accounts entails what is called "creation of money".

This creation of money can be effectuated by any bank enjoying such confidence that its cash deposits attain the requisite degree of liquidity. There has been some debate on the question whether a bank can create "new" money or only lend money that has been deposited with it. One then starts from the assumption that money is something of which the bank possesses a certain amount; the question is whether it can be augmented by the bank itself through its own actions or only through new deposits being made. But this implies a false analogy with physical goods. "Money" here means money of account, that is, sums of monetary units. These do not exist. What exists is a continuous stream of promises to pay sums of such units, payments by which such sums are held to be transferred, and book-keeping measures to keep trace of these acts. The question whether an advance to a customer implies the creation of "new" money or not is *inane*.

Theoretically, a bank is able to create deposits to unlimited amounts. But this does not imply that it can "create money" at will. Claims on the bank would



cease to be usable as book money if the solvency of the bank became doubtful. In practice, therefore, the creation of money by a commercial bank is limited by considerations as to the soundness and profitability of its business, not to speak of the control exercised by the central bank.

Only the central bank can actually "create money" to unlimited amounts. The same checks do not operate here, since the debts of the central bank need not, and cannot, be paid.

This capacity of the central bank to create money at will is a source of strength for the modern monetary system. It entails that the bank can always supply the commercial banks with media of payment to any amount required. These banks, therefore, need never again be subjected to a liquidity crisis by a sudden and heavy withdrawal of deposits; the disasters caused by such contingencies need not be repeated.

These advantages, however, are not bought for nothing; they have their counterpart in the danger of inflation. If the pressures for additional credits were of a purely economic nature, the problem of limiting the creation of credits, or media of payment, so as to assure a relative stability of the general price-level would be merely technical; it could be solved with comparative ease on the basis of the knowledge that is now accumulated concerning the working of the monetary system. What makes the problem so difficult is that the pressures are largely political. They cannot be resisted unless the political climate is favourable.

## VIII

### THE MONETARY UNIT AS A UNIT OF CALCULATION

Having studied the monetary unit as the unit of debts, we now turn our attention to the other function ascribed to the unit, that of being a "measure of value".

The "value" of objects is held to be capable of being expressed in terms of monetary units. Such expressions of value are in two ways of fundamental importance for our economic system. First, the comparison, from an economic point of view, between all sorts of goods and services is facilitated by their values being given in a numerical way. Secondly, it becomes possible to handle the values arithmetically. One cannot add together a car, a radio set, and a building, except as three "physical objects", which is of little use. But if their values are set at 2,000, 100, and 1,000,000 dollars respectively, these sums can be added together, this being a pre-requisite for divers accounting processes.

Already Aristotle speaks about the comparison between different goods that is made possible by means of the monetary unit. He is of the opinion that money

makes things comparable though they are not comparable in themselves. In a famous passage he says:

Money, acting as a measure, makes goods commensurate and equates them; for neither would there have been association if there were not exchange, nor exchange if there were not equality, nor equality if there were not commensurability. Now in truth it is impossible that things differing so much should become commensurate, but with reference to demand they may become so sufficiently. There must, then, be a unit, and that fixed by agreement (for which reason it is called money); for it is this that makes all things commensurate, since all things are measured by money. Let A be a house, B ten minae, C a bed. A is half of B, if the house is worth five minae or equal to them; the bed, C, is a tenth of B; it is plain, then, how many beds are equal to a house, viz. five.<sup>1</sup>

Similar statements are often found in the literature on money. To take a modern example, Baudin says that money makes it possible to compare, though in a misleading manner, things that are not logically comparable. The qualitative differences between the objects are removed, he says, thanks to money; the objects appear as "fungible", i. e., as qualitatively identical. Therefore, it becomes possible to reduce everything to numbers: the splendour of the cathedral as well as the elegance in the gesture of the actor.<sup>2</sup>

In a paper called "Thinking in commodities and in money" Hero Moeller describes economic comparison in the following way:

<sup>1</sup> *Ethica Nicomachea* 1133 b, cited from the translation by W. D. Ross, *The Works of Aristotle* IX, 1925 (The Clarendon Press).

<sup>2</sup> *La monnaie et la formation des prix* (1936) 3.

We perform an operation of re-thinking a mass of sensory perceptions from the world of concrete commodities into abstract quantities of value. This puts us in the position of being able to overcome the diversity of the outward appearance of things and make non-comparable things comparable. We may now add rails, feathers, and balloons, nay, even the fact of their presence in space and time . . .<sup>3</sup>

After declaring that we would find ourselves severely limited if we were confined to considering real things, with the exclusion of "nominal considerations", Coulborn stresses the importance of comparison by means of evaluations in monetary units; without such evaluations one could not, e. g., find a precise way of comparing two men's real income:

This question of comparison is of supreme importance in many ways: upon it, to take one major example, depends the estimation of profit and loss, which is the guiding hand of capitalist enterprise. The process of comparison is made possible by thinking in terms of value; it could not be effected extensively in any other way. For these calculations of value we depend upon the unit of account. Indeed, it is not too much to say that economic enterprise could not exist without using units of account.<sup>4</sup>

Our problem is now to define the real significance of expressing "values" in terms of monetary units. To say that incomparable things are made comparable explains nothing: on the contrary, it only indicates that the whole matter is in need of explanation. Some reflection on what "measuring of value" must imply points in the same direction.

<sup>3</sup> *Finanz-Archiv* 9 (1941—42) 226.

<sup>4</sup> *A Discussion of Money* 30.

The idea of "money" being a "measure of value" seems to include that "value" is a property of objects capable of being measured just as length is measured in feet or metres. But "value" is no property of an object; the word is the expression of a subjective attitude with regard to the object.<sup>5</sup> Moreover, it is hard to conceive how the monetary unit — if its nature is such as has been maintained here — could be used for measuring anything at all.<sup>6</sup>

The whole idea of a measurement seems to be misplaced. In order to obtain a clear view of the matter we may conveniently take our starting point in the indubitable fact that the monetary unit is used as a *unit of price*.

The concept of price was briefly touched upon in the preceding discussion.<sup>7</sup> When a price is offered by a prospective buyer, the meaning is that he is prepared to assume a debt of a certain magnitude in return for the object; and, *vice versa*, when the owner of an object offers it for sale at a certain price, he thereby indicates the amount of the debt that a buyer will have to incur in order to acquire the object. When the contract has been concluded, the price is the sum of monetary units that the buyer has promised to pay. In other words, the price of an object is the amount of the debt assumed by the buyer in a real or contemplated contract for sale and purchase.<sup>8</sup>

<sup>5</sup> This much can be said without entering on an extensive discussion of the concept of value. Cf. Hägerström, *Inquiries into the Nature of Law and Morals* (1953) 136 ff.

<sup>6</sup> Cf. Appendix V.

<sup>7</sup> Cf. above 106.

<sup>8</sup> Hawtrey, *Currency and Credit* 16: "It is the unit of account that

Before making an offer for sale or purchase, and before concluding such a contract, a businessman "evaluates" the object of the bargain in terms of money, i. e., of monetary units. In so doing he makes a comparison between the objects of the proposed exchange: that which he will acquire and that which he will have to give in return. This comparison is evidently of basic importance for all monetary evaluations. It is therefore of interest to define exactly the objects of exchange. In this way we may get a basis for defining the real import of expressing "values" in terms of monetary units.

### 1. *The objects of exchange in sale and purchase*

When a contract for sale and purchase is made, the objects of the exchange seem to be a physical thing on the one hand and money on the other. But such a description is not adequate; it leaves important elements out of consideration.

In the legal view, the object of a contract for sale and purchase is not merely a physical thing as such but the *right of property* to the thing; it is the right of property that is transferred from seller to buyer.<sup>9</sup> From a purely factual point of view what happens, in the normal course of affairs, is a transfer of the control of the thing. An owner — and the seller is usually

is the measure of value. Value means exchange value or market value, and market value means price. A price is a potential debt, and is expressed in terms of the unit."

<sup>9</sup> Cf. Noyes, *The Institution of Property* (1936) 2. For a criticism

owner — exercises an actual control over the objects belonging to him. This situation is a consequence of the attitude of other people with respect to the object, which is, in its turn, conditioned by a whole array of social factors. Thanks to the operation of the legal system, the general reverence it enjoys, habits of thought, deeply engrained inhibitions fostered by penalties for infringement of property rights, etc., a person who has legally acquired an object will, in most cases, be in a position to dispose of it without interference by others. The buyer wants to acquire such a control over the object; and the means employed by him is to purchase it. The contract, if necessary completed by some subsequent act, such as handing over the object itself, is a fact that causes other people to regard the buyer as owner, that makes the rules for infringement of property in relation to the object now applicable against the seller but not against the buyer, etc. Thus the contract normally brings about a change in the prevailing system of control over physical things; and this is the purpose of the transaction.

In return for transferring, or promising to transfer, the control over the object, the seller receives from the buyer a promise to pay a sum of money. In many cases, as often in shop sales, media of payment to the amount of the price are immediately delivered to the seller. When credit is granted, the seller gets a claim against the buyer, which includes a situation of con-

of the legal view see Hägerström, *Inquiries* 1 ff., 315 ff., and Lundstedt, *Legal Thinking Revised* (1956) 76 ff.

straint for the latter. When payment is made by cheque, the claim against the buyer is exchanged for a claim against the bank, and so on. As was pointed out before, the medium of exchange, or that which is offered in return for control over goods, consists of claims and corresponding debts with physical media of payment playing an auxiliary role, the usability of claims as a medium of exchange depending on the existence of the debt pyramid and the interchangeability of debts.

What the seller acquires can be characterized as a position of power. First he gets a power over against the buyer following from the buyer's promise to pay. When payment is made and the seller is put in the possession of media of payment, he obtains a more generalized power, "purchasing power" or ability to pick up certain items from the stream of goods and services offered for sale on the market.

A contract for sale and purchase can therefore be characterized as an act by which a change in the network of actual power-positions is achieved. Both the system of control over goods and the system of debts is altered when the seller transfers control in return for a claim.

The *organization* of society includes a network of positions of control over physical objects. Without them chaos would reign. They are necessary in every kind of society — in a communist society as well as in one based on the principle of free enterprise; only the positions are constructed in different ways and differ greatly with regard to their psychological foundations. The same can be said concerning the



monetary positions of power; they are equally necessary in every economic system except the most primitive ones.

To disregard the alteration in the positions of power and to regard exchange as merely consisting in the handing over of physical objects in return for "money" means confining the view to certain elements in the situation to the exclusion of others equally important. The positions of power pertain to the context of social reality just as well as the physical objects of sale and purchase and the physical media of payment.

## *2. Valuations in terms of monetary units*

We can now clearly see to what the comparison made by the parties prior to a contract for sale and purchase refers. The physical object cannot be compared to a sum of monetary units; there is no likeness that could furnish a basis for comparison. In making their calculations the parties are concerned with elements in the societal situation where they find themselves. The seller compares the position of power over the object with that which he will obtain from the proposed bargain; and the buyer considers the respective advantages and disadvantages arising from acquiring control over the object and putting himself in a position of constraint.

The comparison cannot lead to the conclusion that both positions are in any sense equal; no real equality exists between the control over an object transferred

by the seller and the situation of constraint incurred by the buyer; they are of wholly different nature. The estimates of the parties also differ. If there is to be a bargain, both parties must regard the future position as more favourable to him than the present one. Exchange presupposes difference. The idea that exchange requires "equality of value" dissolves when confronted with the facts. For each party the question is only which position he prefers: the actual one or the one expected as a result of the proposed deal. The choice is purely subjective. It refers to two possible alternatives for action. The ascertainment of the objective characteristics of both positions is a preparation for the choice, which is followed by a decision to act in one way or other.

In comparing the objects of exchange the parties are, of course, aware of the fact that they are not alone in the world in making a bargain; they tacitly start from the assumption that buying and selling is going on all around them. Their trading is only an incident in the continuous stream of exchange through sale and purchase. They also presuppose the existence of the monetary system and, last but not least, the prevalence of certain *market prices*.

Market prices include the existence of a certain regularity in fixing prices on certain commodities. It is not necessarily required that there be a market price for exactly that commodity or service which is to be traded. But there must be market prices for a number of important goods and services if the significance of a monetary claim or of physical media of payment

is to be assessed. People are interested in exchanging control over goods, or bind themselves to services, in exchange for monetary claims or currency, only because they suppose that they will be able, at a future date, to exchange their claims or currency for goods or services, or for claims such as bonds and securities from which they may reap similar rewards.

In making a bargain, therefore, everybody presumes that certain regularities in the activities of the members of society which have prevailed in the past will continue to exist in the future. The forecast will never be an exact one; for not only market prices, but also the nature of goods and services offered for sale, will vary from day to day, and such will also be the case with innumerable other conditions determining the import of a debt-claim situation or the control of goods (trade regulations etc.). But at least the assumption that trading in terms of monetary units will continue is, practically speaking, absolutely reliable. This habit belongs to the very foundations of civilized society; the idea of dispensing with it in an imagined communist community is a utopian dream. Far less solidly grounded is the assumption that the particular monetary system now existing will continue to operate 10 or 50 years hence. History offers numerous instances of such systems being destroyed by reckless inflation or by the command of a victorious conqueror. But in ordinary times nobody takes account of the remote danger of such catastrophes; the continued existence of the present monetary system is taken for granted.

The comparison made by the parties refers to the whole change in the situation. They compare the present situation with the situation that is expected to arise if the bargain is made. Evidently, all elements affecting the respective positions can never be taken into account; a selection among the relevant facts is necessarily made, the important thing for the parties being to make this selection so as not to leave out circumstances of major importance. The comparison is made between the positions as viewed by the parties in the light of their interests.

Thus a comparison, a choice, and a decision to act is what precedes a contract for sale and purchase. The so-called evaluation in monetary units is nothing but this comparison made between two complicated societal positions, the one including control over the object, the other being the claim-debt relation. Such is the reality of the matter.

This description of the process of evaluation in terms of monetary units does not apply to evaluations that are not made with a proposed bargain in view, e. g., for drawing up the balance-sheet of a company, for the determination of taxes, for the assessment of damages, etc. It is easily seen, however, that such evaluations simply mean putting prices on objects. This may be done in several different ways.

(i) The evaluation may refer to actual market prices. The statement that an object is worth 1,000 dollars is then a factual statement: it means that the current price of such objects is 1,000 dollars.

(ii) The statement may be a prediction as to the

result to be expected from an offer of sale. In that case it is also a factual statement though referring to a probability.

(iii) The statement that an object is worth 1,000 dollars may also mean that the right, or proper, price is 1,000 dollars. In that case it is not a factual statement; it does not refer to what *is* but to what *ought to be*. The purpose of such a statement is not to impart knowledge but to influence the feelings, estimates, and behaviour of other persons.

(iv) The price may be a "putative" one. This occurs, e. g., when an estate is to be divided among several heirs and values are put on all sorts of objects, whether they have a market price or not. If an object is then evaluated at 1,000 dollars, this means that one is to proceed, in the division of the estate, on the assumption that the object could be sold for 1,000 dollars, whether there is a real prospect for this or not. (The case may also fall under heading iii.)

(v) The price may be a "fictitious" one. This term is used here to signify a price that is consciously put on an object in disregard of prevalent market prices. A house that has cost 1,000,000 dollars to build is, e. g., written down to 1 dollar in the balance-sheet of the owning company, though it could probably be sold at about the building cost. The meaning is then that even if the house is sold for only one dollar, the financial position of the company is such as shown by the rest of the balance-sheet; since the price that could actually be attained is much higher, there must be a hidden reserve.

(vi) The price may finally be a normative one. In a tax law, for instance, certain principles are laid down for the valuation of property. This means that in assessing taxes the authorities have to proceed on the assumption that objects belonging to a tax-payer could be sold for such and such a price.

Thus the evaluations in question refer to real or supposed prices. Nothing but prices can, indeed, be expressed by evaluating things in terms of monetary units.

It cannot be said that the monetary unit makes things comparable that are not logically comparable. No such magic trick is feasible. What really takes place is that things are replaced by prices for the purposes of comparison and calculation. The comparison refers to the prices, not directly to the objects themselves; the calculations are calculations with prices.

The monetary unit has no function as a "standard of value" besides that of being the unit in which prices are expressed. But the function as a unit of prices is incidental to the function as a unit of debts; for a price, as we have seen, is the amount of the debt assumed by the buyer in a real or supposed contract for sale and purchase. Consequently, the monetary unit has one basic function only. It is the unit in which debts are expressed, the nominal unit on which the great game of money is based.

## APPENDIX I

### Money in law and economics

Many authors maintain that money means something else in economics than in law. Bendixen says, for instance, with Knapp's state theory of money in view:

For the jurists money is medium of payment, approved by the state, a tool for discharging legal obligations. Such obligations are of no interest to the economist; consequently, the means of discharging them are also devoid of interest. To the economist the role of money in economic life is the important thing; and he does not care for commands of the state or approval of the state. What functions as money economically, what commerce recognizes as money, must be money to him. This includes checking accounts, which doubtless are not money according to the state theory but are money economically. State money and bank money are only different manifestations of "commercial" money.<sup>1</sup>

It is true that legal niceties are not generally within the sphere of interest of the economist. Evidently a division of labour is necessary so that legal science and economic science may treat different aspects of the vast and complicated institution of money. But this does not imply that money is something else for the economist than for the jurist. The context of reality is one and the same for whichever science approaches

<sup>1</sup> *Das Wesen des Geldes* (1908) 13.

it. As Nussbaum rightly says, there is only one world monetarily.<sup>2</sup>

Legal obligations and their fulfilment cannot conceivably be without interest to the economist. He must always presuppose a certain legal order. The economy requires a legal machinery enforcing contracts, punishing violation of property and effecting restoration of alienated property, a legal regulation of the mechanism of payments with its apparatus of coins, notes, and banks, and so on. All talk of money as medium of payment is grounded on existing rules concerning debts and the means of discharging them.

It is unimportant whether the jurist employs the word money in a more restricted sense, comprising only legal tender, while the economist feels inclined to use it in a wider sense, including checking accounts. This is only a difference in language, which does not have the slightest bearing on objective reality or on the apprehension of reality by the scientists. It is another question whether the jurists, because of ingrained habits of thought, have been paying too little attention to the modern media of payment; it might be that certain criticism could be levelled, from this point of view, at their treatment of monetary problems.<sup>3</sup> But if this be true, it only means that legal science has not caught up with the development of the institution of money; it does not in any way warrant

<sup>2</sup> *Money in the Law* 15.

<sup>3</sup> G. W. McKinley writes in *The American Economic Review* XLI (1951) 716: "There is something seriously wrong with any legal concept which could lead a court to exclude the country's principal medium of exchange (i. e. checking accounts) from the category of money."



the assertion that money is not the same thing in law as in economics.

Forstmann contends with particular emphasis that money in law is something else than money in economics. These sciences have different objects of knowledge. To seize its object, he says, each science must make abstraction from all elements belonging to the sphere of the other: legal theory of money must abstract from every economic element, and economic theory from all legal elements.<sup>4</sup>

The author here seems to move in a metaphysical sphere, unconcerned by the realities of actual life. How could one and the same thing *be* different things for economists and jurists? Is the debt incurred by a buyer of goods one thing when viewed by an economist and another thing when viewed by a jurist? There is one and the same situation involving seller and buyer; the economist and the jurist may approach it with different purposes; but the situation is not transformed into two for that reason.

If the principle of confining economics and legal science respectively to their own hermetically closed departments were really carried through, this would lead to the suffocation of both. Fortunately, the author has left considerable holes in the walls, through which the air is let in. How little he actually makes abstraction from legal elements may be gathered for instance from his own definition of the economic concept of money:

<sup>4</sup> *Geld und Kredit* I (1952) 29 ff.

Money in the economic sense is an anonymous claim (*Forderungslegitimation*) on the national volume of commodities and services, which is generally recognized within a community of payment (*Zahlungsgemeinschaft*) and which can be activated at any time . . .<sup>5</sup>

Thus, money belongs to a community of payment. But what is payment if one makes abstraction from all legal elements? Payment presupposes a debt, which is a legal phenomenon; payment itself is a legal act purporting the discharge of a debt. Moreover, how could a community of payment exist unless it were held together by common rules concerning debts, legal tender, cheques, banking organisations, etc? The legal concept of a claim, indeed, is made the pivot of the definition. On every point the author, who professes to disregard every legal element, takes his stand on the law in his very definition of money.

A different opinion, much to be preferred, is that of Hawtrey, who states that "the conception of a debt enforceable by law or custom lies at the root of all economic relations of human society".<sup>6</sup> This is undoubtedly true.

The position of Forstmann must be based on the assumption that the object of legal science belongs to "the world of Ought", which is completely separated from the actual world. The impossibility of making such a distinction is illustrated by the example of money. Surely the institution of money has not for its foundation an "Ought" existing somehow in the

<sup>5</sup> Ibidem 72.

<sup>6</sup> *Currency and Credit* 420. Cf. Copeland, *A Study of Moneyflows in the United States* 212.

clouds; it is grounded firmly on a legal system forming part of the actual context of society.<sup>7</sup>

## APPENDIX II

### von Mises on the concept of a medium of payment

According to von Mises, money is the medium of payment to the jurist only; to the economist it is the medium of exchange. This view is based on the opinion that payment, from the economic point of view, is no independent proceeding, distinct from the transfer of commodities, but only an element in the transfer of commodities. Credit transactions, he says, are in fact nothing but the exchange of present goods against future goods.<sup>1</sup>

von Mises is evidently of the opinion that in this manner he describes the "essence" of monetary transactions which is hidden behind their outward appearances. But why are monetary transactions less real than exchange of commodities? How can it be said that credit transactions are nothing but an exchange of present goods against future goods? A seller who receives a cheque in payment for an automobile does not thereby acquire any future goods. Future goods

<sup>7</sup> On the question of the "Ought", much discussed in modern philosophy, I should like to refer above all to Hägerström, *Inquiries into the Nature of Law and Morals* (1953). For an attempt to explain law as an actuality without recourse to an "Ought", see the author's book *Law as Fact* (1939).

<sup>1</sup> *The Theory of Money and Credit* (1953) 35.

cannot be received in the present time at all. What he actually receives is the cheque, which, if honoured by the drawee bank, leads to his account with the bank being credited with the amount of the cheque. The result of these proceedings is that he is put in the position of being able to pay for some goods in the future. But that is another matter. Between the receipt of a cheque and an eventual future payment for goods bought by the receiver of the cheque there lies a whole series of events, including the continued functioning of the bank, the continued existence of a market, certain transactions with the bank, etc.

In reality, a complicated social machinery is made use of in credit transactions. There is no point in passing over these facts in an attempt to look behind appearances and disclose the hidden "essence" of things. The actualities of the monetary system are to be found in the monetary transactions; they form the material on which a monetary theory is to be built.

### APPENDIX III

#### Turgot's sheep

The idea of an "abstract unit of account" being developed from a commodity serving as standard of value was expounded by Turgot in a famous passage in his *Réflexions sur la formation et la distribution des richesses* (1770, reprinted in *Oeuvres complètes* II, 1914, sect. 36). The same reasoning is often encountered in literature on money.

Turgot argues in the following manner. Suppose that a sheep is accepted as a measure of value in a country possessing only one kind of sheep. People will then take the unit to be a sheep of average age and quality. The values of other commodities will be expressed in terms of such a sheep. In the course of time this word *sheep* will, however, be dissociated from the idea of real living sheep and come to signify a certain *value*. The word "sheep" will then evoke the idea of, e. g., a quantity of wheat or wine equivalent to this value. If the number of sheep suddenly became decimated, so that one had to give double the quantity of wheat or wine for one living sheep, people would say that one living sheep was worth "2 sheep". The "sheep" would be the expression of an imaginary and abstract value. (Cf. Nussbaum 18, note 71.)

Such a development is quite conceivable. But under what conditions could this be and what would it imply? Two hypotheses are possible.

(i) The barter system prevails, and the exchange ratios between various commodities are expressed in terms of sheep. A spear is, e. g., said to be worth  $x$  sheep, a shield  $y$  sheep, a boat  $z$  sheep. From the beginning this means that one spear is currently exchanged for  $x$  living sheep, etc. It could mean nothing else. The ratio of exchange obtains between real objects: living sheep on the one hand and a number of other commodities on the other hand. The "standard of value" is a living sheep of average quality.

Now the sense of the word "sheep" in this connexion undergoes a change so that it no longer signifies

a real living sheep. Is this sufficient ground for saying that the word has come to mean an "abstract unit of value"? What would this be? If the exchange value of an object is the same as its ratio of exchange to other objects — and what else could it be — then two objects are needed if the talk of value is to make sense. An exchange ratio cannot exist by itself, without reference to real objects. Therefore, an "abstract unit of value" is unthinkable. The "unit of value" can only be an object with certain properties, the values of other objects meaning their ratios of exchange to objects of the first kind.

If it is to convey any sense to estimate the value of a shield in  $x$  "sheep", not meaning real living sheep, the word "sheep" in this connexion must signify a quantity of some commodity not carrying this name in ordinary language; for the estimate implies that there is an exchange ratio between the commodity estimated and another commodity which serves as a standard commodity. This is, indeed, the case in Turgot's example. He tacitly assumes that the word "sheep" has come to be a name for a quantity of wheat or of wine. When the value of one living sheep is said to be "2 sheep", the meaning is that a certain quantity of wheat or of wine has to be given in exchange for one living sheep. In case there are two or more commodities, whose mutual exchange ratios are stable, the word sheep may signify a certain quantity of any of these commodities.

If Turgot's example is to be set out in a more comprehensive way, what has taken place seems to have

been something like this. Originally exchange ratios were expressed in terms of sheep of average quality, a spear being worth  $x$  sheep, a shield  $y$  sheep, etc. A fixed ratio of exchange obtained between 1 sheep on the one hand, and quantity  $A$  of wine (of certain quality) and quantity  $B$  of wheat (of certain quality) on the other hand. It therefore became natural to say that one possessed, or bartered away, wine to the amount of 2 or 5 or 10 sheep, etc. In this way the word "sheep" would be used to indicate quantities of wheat and wine. In the course of time wheat and wine became more important in bartering than sheep; it must be supposed that the role of living sheep became comparatively insignificant. Then it could happen that the word sheep in connexion with bartering first and foremost called forth the idea of quantity  $A$  of wheat or quantity  $B$  of wine (the exchanged ratio between these two commodities remaining stable); finally, the word completely lost its reference to real living sheep. Quantity  $A$  of wheat and quantity  $B$  of wine had replaced real living sheep as units for expressing exchange ratios, though the word "sheep" was used to indicate these quantities instead of real sheep. The saying that a shield was worth  $x$  "sheep" would therefore mean that it could be exchanged for  $x \cdot A$  of wheat. If a living sheep was valued at "2 sheep", this was the same as saying that it could be exchanged for 2  $A$  of wheat or 2  $B$  of wine.

(ii) Contracts are concluded in terms of "sheep".  $A$  transfers, e. g., his boat to  $B$  in return for so and so many "sheep". Under the assumption that the word

“sheep” no longer signifies living sheep, B obviously does not undertake to procure a number of such sheep for A. We also suppose that the word “sheep” does not signify “sheep” of wheat or wine or any other commodity, i. e., that the word is not a mere expression for a quantity of a commodity. If the promise of A is to make sense under these circumstances, the “sheep” will now be a name for a unit of the kind called monetary unit; and there will be in existence some recognized means of honouring promises expressed in terms of sheep, e. g., certain bits of paper with a number and the word “sheep” on their face.

## APPENDIX IV

### On the concept of a unit of value

The article “The Nature of Money” by Anatole Murad is particularly illuminating with respect to the concept of a unit of value. The monetary unit is a unit of value according to Murad. He criticizes the distinction usually made between the function of money as a standard of value and as a standard of deferred payments. In his opinion no such distinction can be made because the standard of deferred payments *is* nothing but the standard of value. He writes:

Textbooks tell us that money is the commodity serving as a standard of value and as a standard of deferred payments.



Apparently we are to understand that a distinction must be made between these two functions. The standard of value supposedly serves as the common denominator in terms of which we express the value of commodities; it enables us to put prices on commodities. The standard of deferred payments, on the other hand, permits us to use a common denominator for debts and claims.

Now, debts and claims arise from contracts involving valuations of commodities. Insofar as these valuations are made in terms of the standard of value, the debts and credits must also be stated in terms of the standard of value. In other words, the standard of value is also the standard of deferred payments and therefore is the standard of deferred payments. To say that money is the standard of deferred payments in addition to being the standard of value is very much like saying that the kilogram is a standard of weight and a standard for contracts to deliver a certain weight of something in the future.

The unit of value is defined by Murad as a unit of purchasing power or as a certain degree (a certain amount) of command over goods in general possessing exchange value. The idea is that commodities are evaluated in terms of the unit of value when a sale is to be made and that, consequently, the debt assumed by the buyer must be expressed in terms of the unit of value.

But how is the amount of purchasing power to be defined? Murad says that any alteration in the price of even a single commodity will change the amount of purchasing power expressed by "one dollar". The unit of value is therefore "a vague concept of an ever-changing magnitude of purchasing power". (Cf. above p. 112.) In *Private Credit and Public Debt* the

unit is further described as a certain degree or amount of command over unspecified quantities of unspecified commodities (22, 37).

An ever-changing unit is, however, no unit at all. If a unit is to be a unit of measurement it must be quantitatively determined in some way. Such a determination is implied when the author talks of a certain *degree of command* over commodities. But the determination is instantly removed when it is said that the degree of the command expressed by the unit of value refers to *unspecified* quantities of unspecified *commodities*. It seems impossible to apprehend a degree of command over something unspecified.

What the author has in mind is obviously that it cannot be specified how much of what commodities can be bought for, e. g., one dollar. This is quite correct. But the conclusion should be that the "dollar" does not signify an amount of purchasing power.

The obligation of a buyer is stated in terms of monetary units. But he does not assume the responsibility of conferring a certain amount of purchasing power on the seller. He only promises to transfer a sum of monetary units. This, it is true, cannot really be done. But it is held to be done by handing over certain bits of paper or pieces of metal or by assigning a liquid claim on a bank; and the debtor has to do something of this kind if he wants to avoid certain unpleasant consequences. Nobody knows how much the creditor will be able to buy for the sum acquired by him when the debt has been paid. This will depend on the price-level at that date, on the general condi-

tions of commerce including trade regulations of various kinds, and so on.

Murad argues that the obligation of the buyer must be expressed in terms of the unit of value because the obligation arises from a contract involving valuation of a commodity. But the "valuation" preceding the contract is not a comparison between a commodity and a number of "units of value". It is a comparison between two different situations: the existing one and the one to be expected if the bargain is made. On the one hand there is the actual situation where the seller has the control over the object and the prospective buyer has still no obligation towards him; on the other hand the situation where the control has passed to the buyer while he has assumed a debt of a certain magnitude or handed over an amount in cash.

The possession of cash or liquid claims entails what is called purchasing power, i. e., an ability to buy things and services according to market conditions. Murad rightly points out that purchasing power, properly speaking, can only be ascribed to persons. But a person's purchasing power is not made up by a number of *units* of purchasing power, nor can it be divided into such units. The purchasing power based on the possession of a checking account of 100,000 dollars is not 100,000 times greater than the purchasing power derived from the possession of a dollar piece. I can buy very few things for one dollar, e. g., a package of cigarettes, but neither a house nor a car, which, however, is possible if I have got 100,000 dollars. Moreover, if I can buy one package of cigarettes for 1

dollar, I will probably be able to buy much more than 100,000 packages for 100,000 dollars. A person's purchasing power depends on innumerable circumstances. It is a name for certain advantages derived from the functioning of the monetary economy. It cannot be numerically expressed by the amount of media of payment at his disposal because its magnitude does not simply vary in accordance with the sum of monetary units represented by this amount.

The concept of a unit of value is a sham concept. There are no such units. The monetary unit is the unit of debts only, i. e., a word used in certain formulas for establishing and ending certain situations of constraint and in the devices pertaining thereto.

## APPENDIX V

### The unit of value and the unit of length

The ideal unit has often been compared to a unit of length, such as an inch or a metre. It is maintained that the unit of length is as abstract as the ideal unit. In this way the doubts arising from the impossibility to apprehend anything as being the ideal unit are obviously supposed to be removed.

Coulborn writes, e. g., in a passage cited above (117):

Let us ask ... what an inch is. Can an inch be picked up and handled? An inch is a distance, a creation of the mind, an idea; it can be thought of, or represented by strokes and numbers on a ruler, but itself it is intangible,

invisible and unsubstantial. So is the abstract side of money, the unit which we call a pound sterling, or any other unit of account.

It is quite true, of course, that a length by itself is unsubstantial. But length is a quality of physical objects. We could have no idea of a certain length unless physical things were given to us visually and/or tactually. But the ideal unit — the dollar or the pound — is certainly no quality of any physical object. So the comparison fails.

Murad says in the article "The Nature of Money" concerning the concept of a standard of measurement that a standard unit of length (only) expresses the length of any object relative to the length of any and all other things. To say that an object has the length of 1 metre is all at once to say that it has twice the length of an object half a metre long, etc. Similarly, to say that a bushel of wheat has the exchange value of 1 dollar is to say all at once that its exchange value is twice as large as that of a commodity with an exchange value of half a dollar. The author continues:

These observations make it clear that standard units are always magnitudes of the characteristic which they are employed to measure; they are never things possessing these characteristics. The standard unit of length (foot length, metre, etc.), is a certain length, not an object possessing that length. The standard unit of exchange value (e. g., dollar, pound, franc), is a certain exchange value or a certain degree of command over goods in general, not a commodity possessing that exchange value or command over goods in general. The standard unit of value could under no circumstances be a commodity.

Murad is certainly right in maintaining that the metre is not identical with any particular object. But it is not for that reason a magnitude existing so to speak by itself. The metre is the length of one particular object, namely the prototype in Paris. More accurately speaking, it is the length between two strokes on this carefully guarded rod. All measurement in terms of metres implies an indirect comparison between this rod and the object to be measured, all metre rules being based on the prototype through one or more intermediaries. To say that an object has the length of 1 metre is not merely to say that it is twice as long as an object half a metre long. It is to say that its length is the same as the length between the strokes on the Paris prototype.

What could answer to this when "values" are expressed in terms of dollars? There exists no similarity since in this case no property of an object is expressed in terms of a property of another object. The statement that an object is worth 100 dollars says that its current price, or its proper price, etc. is 100 dollars. This is the same as saying that objects of this kind are currently sold on the market for 100 dollars, or that a buyer ought to pay 100 dollars for this object, etc. (Cf. above 157 ff.)

## APPENDIX VI

### The monetary unit as an indicator of existing ratios of exchange

The idea of measuring values is formed by analogy with measurement of length. Now if length is to be measured, there must be an object to be measured and a measuring rod. In its simplest form, from which other forms are derived, the measuring consists in placing the rod the requisite number of times along the object in order to determine how many times the object is longer than the rod. The result therefore is to show the length of the object in relation to the rod. But it is generally of little interest to know the length of an object in relation to a rod of arbitrary length, which is only occasionally used. The normal procedure is therefore to employ a rod that conforms to a rod which is in more or less general use as a standard. In the metre system this rod is the prototype in Paris. Its length is, of course, arbitrarily chosen; but since it is very widely used as a standard, it becomes serviceable to determine the length of objects in relation to this particular rod. Other measuring rods within the metre system are not of arbitrary length, since they are made to conform as exactly as possible to the standard rod.

If the "measurement of value" is to be conceived as something analogous, value must correspond to length and the monetary unit to the measuring rod. Such an analogy has often been held to exist. "Value"

is then taken in the sense of value in exchange or ratio of exchange. The value of commodity X means that a certain quantity of X is currently exchanged for such and such quantities of commodities A, B, C, etc. The "unit of value" is supposed to be a unit that serves as common denominator to express these exchange ratios just as a unit of length is used to express the relative lengths of different objects.

Such a unit of value is perfectly comprehensible if a *commodity* serves as standard in a *moneyless economy*. Suppose there did exist a market on which commodities A, B, C, etc. currently could be exchanged for each other and for gold and *vice versa*; then it would be correct to say that 1 kilogram of gold would serve as a standard of exchange value for all those commodities. Every one of those commodities having a relatively fixed ratio of exchange to gold, their mutual ratios of exchange could easily be compared in terms of gold. 1 kilogram of gold would play the role of an indicator of exchange relations that would really be similar to the function of the standard unit of length as indicator of lengths.

In these circumstances the standard unit is a quantity of a commodity. But when the standard is said to be an "abstract" unit the meaning is to say that it is *not* a quantity of a commodity. How then is it to be conceived?

An explanation is attempted by several authors by saying that the abstract unit of value forms the basis of a *scale of reckoning* by means of which the exchange relationships of the various commodities on the market



are expressed. The unit may be empty in itself; or it may be the expression of a quantity of purchasing power. But it serves to indicate the exchange relations of every commodity with respect to all other commodities. If commodity A possesses 10 units of value per unit of weight, one instantly knows how it may be exchanged for commodities possessing 50, 100, or 200 units of value per unit of weight.<sup>1</sup>

The explanation rests on the assumption that it has been determined in some way how many "units of value" one unit of weight of some commodity includes. The scale of reckoning, numbers of the unit X, will become serviceable only when this has been done. Numbers 10, 50, or 100 of X tell us nothing about the exchange relationship between silver, sheep, wheat, and wine until we know, for instance, that 1 ounce of silver is held to represent 10 units of value. If the exchange relationship of silver to sheep, wheat, and wine is known, one can then say that a sheep represents so and so many units, a bushel of wheat so and so many units, etc.; and these figures will be handy for comparisons.<sup>2</sup>

Under such conditions, however, "10 units of value" is merely another expression for 1 ounce of silver. The statement that a sheep represents X units of value is only a way of saying that the ratio of exchange between silver and sheep is 10: X. Thus we are back to the barter economy, and the "unit of

<sup>1</sup> Cf., e. g., Bendixen, *Geld und Kapital* 21 ff.; Fraser, *Economic Thought and Language* 152; Murad, "The Nature of Money".

<sup>2</sup> Cf. above 166 ff.

value" is simply a quantity of a commodity, in this case 1/10 of an ounce of silver.<sup>3</sup>

In a money economy no direct ratios of exchange exist between the countless commodities on the market. Wheat is not exchanged for automobiles or refrigerators, for coffee or for tobacco; it is sold on the market, and the seller buys his car or his refrigerator as well as his coffee and his tobacco. Practically all exchange is mediated by money, or, more accurately speaking, by promises to pay money. We have now to do with prices instead of direct ratios of exchange between commodities.

On the basis of prevalent market prices one can calculate the chances of exchanging X tons of coal for Y tons of oil through *selling* the coal and *buying*

<sup>3</sup> Murad holds a different view as to the standard unit of value in a system of barter. He insists that the unit is *not* a quantity of a commodity but the *value* of a commodity. He writes in "The Nature of Money" on the establishment of a standard unit of exchange value:

"The exchange value of a fairly uniform commodity known to all members of the community is chosen as the standard unit of exchange value. Thus, in a pastoral society, where practically everybody is raising sheep, the exchange value of a sheep may be used as a common denominator for all exchange values. An ox, then, is worth 10 sheep, a pound of gold is worth 100 sheep, and so on. The sheep has become the standard of value — and again, it might sound like hairsplitting to insist that it was the exchange value of the sheep, not the sheep itself, which had become the standard."

With the value of a sheep the author understands its ratio of exchange to other commodities; it is the exchange at the ratio of 10 sheep for 1 ox, 100 sheep for 1 pound of gold, etc. How then can the ratio of exchange of sheep, and not the sheep itself, be the standard unit of value, by means of which exchange relations are expressed? This seems to be incomprehensible. The ratio of exchange does not, so to speak, exist by itself. It is a ratio of exchange between two commodities; and the only way of expressing it is to indicate the quantities of the commodities that are exchanged for each other.

the oil. The transaction presupposes the existence of the money economy and a market for coal and oil. Nobody knows what the exchange relationship between coal and oil would be in a moneyless economy. (Probably no exchange relationship at all would exist. Both coal and oil are brought to the surface by industrial means; but industrial production could never have been developed without a money economy.) It means turning things upside down to say that prices express existing ratios of exchange.

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